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EDWARDS'S
BOTANICAL REGISTER:

OR,

ORNAMENTAL FLOWER-GARDEN
AND SHRUBBERY:

CONSISTING OF

COLOURED FIGURES OF PLANTS AND SHRUBS,
CULTIVATED IN BRITISH GARDENS;

ACCOMPANIED BY THEIR

History, Best Method of Treatment in Cultivation, Propagation, &c.

CONTINUED
BY JOHN LINDLEY, Ph. D. F.R.S. L.S. AND G.S.
PROFESSOR OF BOTANY IN THE UNIVERSITY OF LONDON,
&c. &c. &c.

New Series.
VOL. VII.
OR VOL. XX. OF THE ENTIRE WORK.

——viret semper——nec fronde caducâ
Carpitur.

MISSOURI
BOTANICAL
GARDEN.

LONDON:
JAMES RIDGWAY AND SONS, PICCADILLY.

M.DCCC.XXXV.

pls. - 1653-1741

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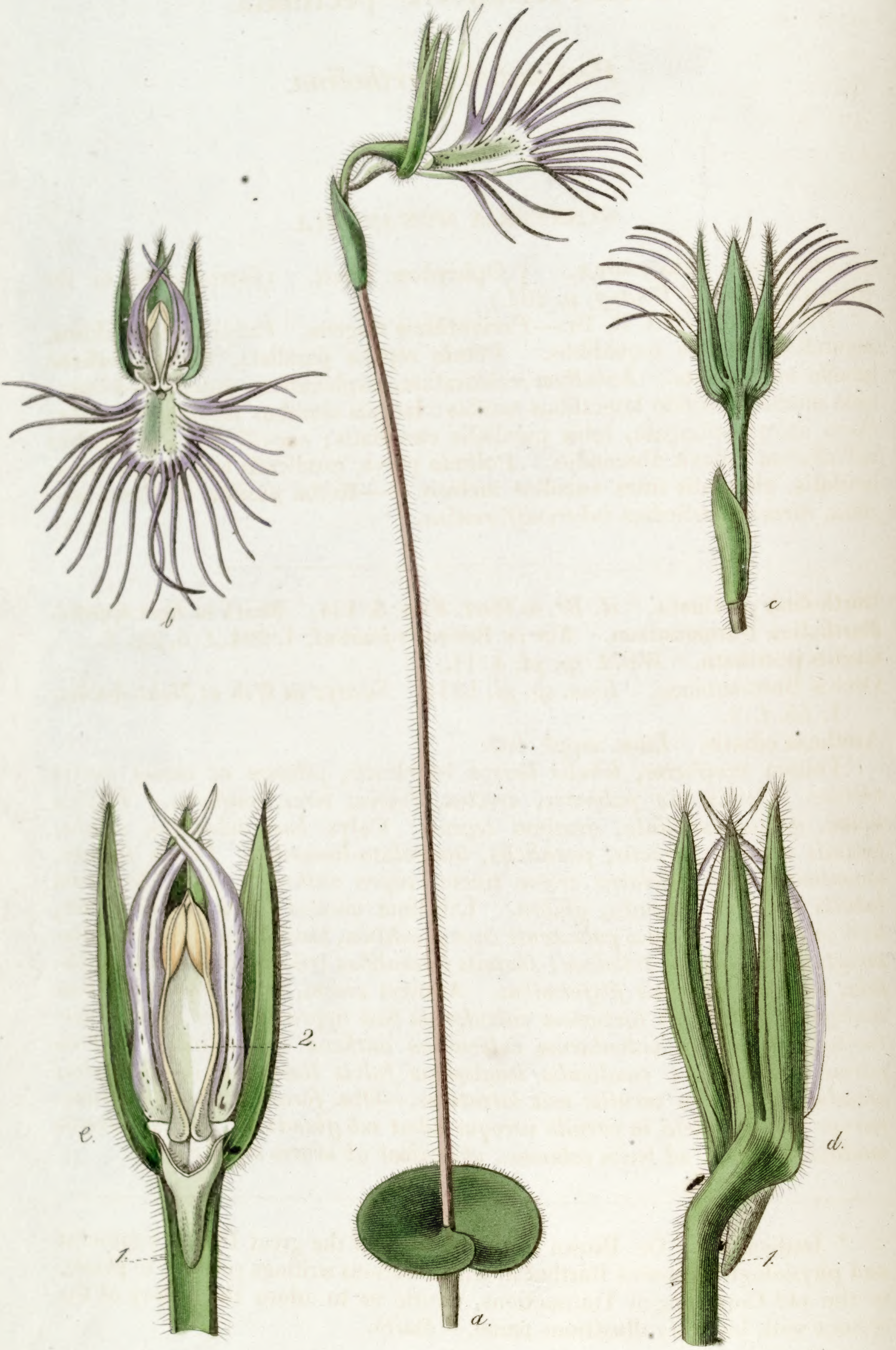
1653.



Miss Drake. del.
Pub. by J. Ridgway 169 Piccadilly March. 1. 1834.
J. Watts sc.

1653

BARTHOLÍNA* pectináta.

Pectinated Bartholina.

◆

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. § Ophrydeæ *Lindl.* (*Introduction to the natural system of Botany, p.* 262.)

BARTHOLINA R. Br.—*Perianthium* ringens. *Calyx* basi tubulosus, secundus, laciniis æqualibus. *Petala* sepalis parallela, falcata, infernè labello subconnata. *Labellum* calcaratum, explanatum, patens, 3-lobum: lobo medio multifido lateralibus trilobis: laciniis omnibus filiformibus. *Anthera* erecta, elongata, lobis parallelis cucullatis; *cuculli* distincti, basibus valvularum inflexis absconditi. *Pollinia* parva, caudiculis longissimis canaliculatis, glandulis intra cucullos inclusis.——Herba *pusilla, uniflora, unifolia, hirsuta,* radicibus *tuberculiformibus.*

Bartholina pectinata. *R. Br. in Hort. Kew.* 5. 194. *Smith in Rees append.*
Bartholina Burmanniana. *Ker in Brande's journal,* 4. 204. *t.* 5. *fig.* 2.
Orchis pectinata. *Willd. sp. pl.* 4. 11.
Orchis Burmanniana. *Linn. sp. pl.* 1334. *Swartz in Web. et Mohr Archiv.* 1. 55. *t.* 3.
Arethusa ciliaris. *Linn. suppl.* 405.

Folium *reniforme, lobulis baseos imbricatis, pilosum ut omnes partes virides.* Caulis *vix palmaris, erectus, fuscus, teres, uniflorus.* Bractea *unica, ovata, cucullata,* ovarium *tegens.* Calyx *basi tubulosus, viridis, laciniis secundis, erectis, parallelis, lanceolato-linearibus.* Petala *falcata, acuminata, alba, violaceo colore tincta, supra antheram curva, basi cum labello levissimè connata, glabra.* Labellum *unciam latum, medio viride, basi calcare brevi conico pubescente cavo præditum, laminâ explanatâ, circumscriptione orbiculari, trilobum; laciniis lateralibus trilobis, intermedio multifido, omnibus violaceis filiformibus.* Anthera *erecta, loculis elongatis, basi contiguis: suturis ob torsionem valvularum basi approximatis;* cucullis *distinctis, sub basibus valvularum exteriorum antheræ absconditis.* Pollinia *parva, aurantiaca; caudiculis longissimis fulvis linearibus canaliculatis; glandulis parvis in cucullis suis latentibus.*—Obs. *foramen, v. areola transparens muco repleta in cucullo utroque adest sub glandulis.* Stigma *areola madida, oblonga, ad basin columnæ, ubi calcar ab ovario separatur.*

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* Dedicated by Dr. Brown to the memory of the great Danish anatomist and physiologist Thomas Bartholin, whose various writings relating to plants, in the old Copenhagen Transactions, entitle us to adorn the history of the science with his truly illustrious name.—*Smith.*

We believe this to be, with the exception of a very imperfect representation in Brande's Journal, the first figure from the live plant that has been published of this rare and curious species, which appears from the *Hortus Kewensis* to have been introduced so long ago as 1787, but which we never met with till we were favoured with it in August 1832 by the Messrs. Rollisson, of Tooting. It is a native of the Cape of Good Hope, where it was found by Thunberg on the sides of hills in Roode Sand, and near Cape Town, flowering in October, November, and December.

We presume that this, like all the Cape Orchideous plants, is incapable of being cultivated permanently by any means hitherto discovered; for the roots, although when first imported they flower, afterwards disappear. They should be planted in sandy loam, and kept in as light a greenhouse as possible; for it is probable that the reason of their disappearing is the want of light during their growing season in this country.

In the accompanying figures *a* is the plant of its natural size; *b*, a flower seen in front; *c*, the same viewed from behind; *d*, the same shewn in half profile, the lip being cut away, 1. is the spur; *e*, a front view of the petals and anther, 1. the spur, and 2. the anther: the two last figures are magnified.

1654.

W Hart del.

Pub by J Ridgway 169 Piccadilly Mar 1. 1834.

S. Watts sc

1654

LIÁTRIS* scariósa.

Large-flowered Liatris.

◆

SYNGENESIA *POLYGAMIA ÆQUALIS.*

Nat. ord. Compositæ *Juss.* § Vernoniaceæ *Eupatorieæ*, Lessing. Gen. Compos. p. 157. (*Introduction to the natural system of Botany, p.* 197.)

LIATRIS Schreb.—*Pappus* pluriserialis, plumosus. *Corolla* limbo à tubo non distincto. *Involucrum* multiseriale. *Rachis* ebracteolata.——Herbæ *Boreali-Americanæ, perennes,* radice *fibrosâ v. tuberosâ;* foliis *alternis, integerrimis, sæpè angustis, glanduloso-punctatis;* capitulis *multifloris, spicatis v. corymbosis;* involucris *imbricatis.* Lessing l. c.

L. *scariosa;* caule simplici subpubescente, foliis lanceolatis utrinque attenuatis margine scabris, floribus (capitulis) racemosis distantibus, squamis anthodii (involucri) spatulatis margine coloratis. *Spreng. syst. veg.* 3. 432.

L. scariosa. *Willd. sp. pl.* 3. 1635. *Hort. Kew.* 4. 503. *Pursh fl. amer. sept.* 2. 509. *Beck bot. of north. St. p.* 175.

Serratula scariosa. *Linn. sp. pl.* 1147.

Radix *tuberosa, crassa, carnosa.* Folia radicalia, *spatulata, in petiolum angustissimum attenuata, glabra;* caulina *à lata basi oblongo-linearia, patentissima, undulata, margine scabra: superiora sensim minora.* Caulis *2-2½-pedalis, angulatus, pilis scaber, apice (in hortis) subramosus, sæpiusque in corymbum contrahens.* Pedunculi *in corymbosis basi ferè nudi, in racemosis foliis parvis scabris recurvis sparsis vestiti, in squamis involucri sensim abeuntibus.* Capitula *omnium maxima, hemisphærica; involucri multiseriati foliolis ciliato-scabris exterioribus foliaceis squarrosis acutis, interioribus oblongis obtusis appressis margine coloratis.*

Professor Beck calls this, most correctly, a very variable species. It is a native of North America, from Pennsylvania to Carolina, inhabiting sandy woods, and growing 3 or 4 feet high; but in this country we have never remarked it more than 2½ feet, or 3 feet high at the most.

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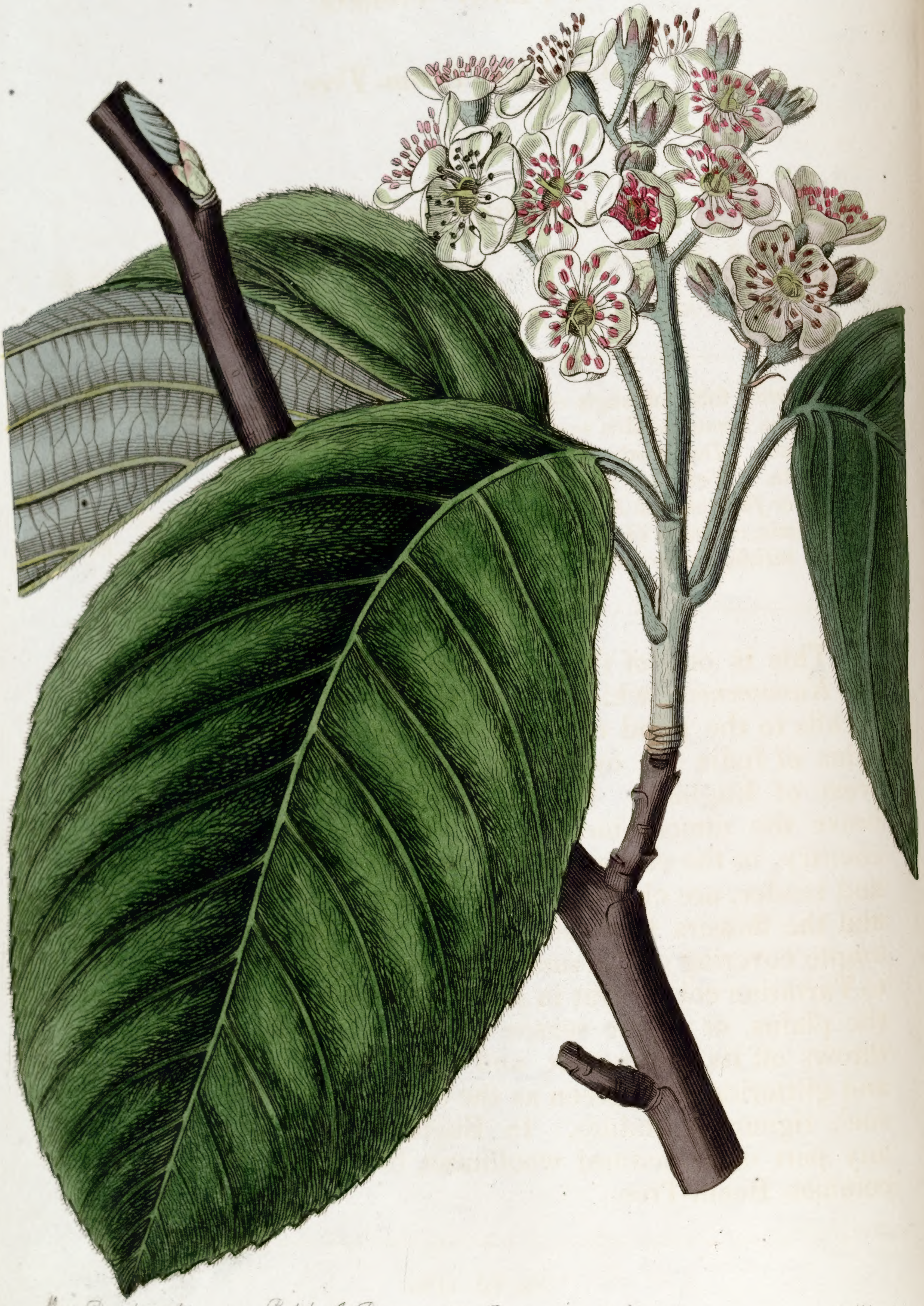
* The meaning of this word is unknown.

Its variable nature consists chiefly in the size and arrangement of its flower-heads, which are from 1 to nearly 2 inches in diameter, with the borders of their scales stained more or less with rich crimson. Sometimes the stalks of the flower-heads are all of nearly the same length, and then they form a simple raceme, as in our figure; but very often the stalks of the lowest are very long, and even branched, and then a broad corymb is produced, which, on account of the rich purple of the flowers, is exceedingly beautiful.

It is one of the most common of this very handsome genus, and perhaps the most worth cultivating; for it is less impatient of cold and wet than most of the others. They are all, however, richly deserving the care of the gardener; and it is probable that if they were kept in a sandy peaty soil which is thoroughly well drained, and covered by dead leaves in winter, as happens in their native woods, they would all thrive equally well. Flowers from August to October.



Miss Drake del. Pub by J. Ridgway 169 Piccadilly Mar 1 1834 J. Watts sc.

PÝRUS* crenáta.

Crenated Beam-Tree.

ICOSANDRIA *DIGYNIA.*

Nat. ord. Pomaceæ *Juss.* (*Introduction to the natural system of Botany, p.* 83.)

PYRUS.—Suprà, vol. 6. *fol.* 514.

P. *crenata;* foliis oblongis crenato-serratis utrinque acutis junioribus densissimè lanatis adultis supra calvis nitidissimis, corymbis lanatis.

P. crenata. *Don prodr. fl. nep.* 237.

P. vestita. *Wall. cat. no.* 679.

Arbor facie omninò P. Ariæ, *quâ differt foliis junioribus densissimè lanatis acutissimis, corymbis (in exemplo spontan.) lanugine albissimâ obductis, foliis adultis nitidis glaberrimis subtùs quasi pannosis.*

This is one of the trees that, along with the P. *lanata,* or *Kamunensis,* which is a mere variety of *Pyrus Aria,* recalls to the mind of the British traveller upon the mountains of India his own land, and the sweet scenery of the west of England. Nature seems to have intended it to brave the utmost inclemency of climate; for in its own country, in the earliest spring, the leaves, while still delicate and tender, are clothed with a thick white coating of wool; and the flowers themselves are so deeply immersed in an ample covering of the same material, as to bid defiance even to Tartarian cold. But in proportion as it descends towards the plains, or as the season of warm weather advances, it throws off its fleecy coat, and at length becomes as naked and glittering with green as the trees which have never had such rigour to endure. In England it scarcely acquires any part of its natural woolliness, but is as naked as our common Beam-Tree.

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* See fol. 1196.

It is found naturally in the highest of the mountainous parts of Northern India. Dr. Wallich received it from Kamoon and Chinese Tartary, as well as from Nepal; and Mr. Royle informs us, that "in the tracts of mountains which intervene between the Ganges and Sutlej rivers, it is found on such lofty mountains as Tuen, Choor, and Kedarkanta, from 9000 feet up to the limits of forest, or nearly 12,000 feet of elevation. In such situations it comes into flower in the month of May, when the thermometer ranges from 42° to 65°, the snow is fast melting away, and species of Primula, Caltha, Viburnum, and Lonicera, are in full flower, with the splendid Rhododendron campanulatum. The fruit of this species, as well as of P. lanata, called *paltoo,* is eaten by the hill people."

Our drawing was made in the Garden of the Horticultural Society in June last. The tree is to be increased by grafting on the Whitethorn.

1656

[illegible] del. Pub by J. Ridgway 169 Piccadilly [illegible] [illegible] sc.

ÁSTER* éminens; var. *virgineus*.

Pure-white Lofty Aster.

◆

SYNGENESIA *POLYGAMIA SUPERFLUA.*

Nat. ord. Compositæ *Juss.* (*Introduction to the natural system of Botany*, *p.* 197.)

A. foliis lanceolato-acuminatis subamplectentibus inferioribus in medio argutè serratis supra in ambitu latè scabris, caule paniculato patulo, ramis apice simpliciter corymbosis, periclinii turbinati subæqualis foliolis lineari-lanceolatis patulis. *Nees ab Esenbeck gen. et sp. Ast. p.* 87.
A. junceus. *Hort. Kew.* 3. 204, *&c.*
A. longifolius. *Lam. enc. méth.* 1. 306.
Var. *virgineus;* calathiis albis, foliis latiusculis supra magis scabris. *Nees l. c.*
A. virgineus. *Nees synops. Ast. p.* 22.
A. albus. *Hort. angl.*

An extremely common and consequently very variable North American herbaceous plant, found by the sides of canals and in marshes from New York to Carolina; flowering from September to October.

Its varieties are so dissimilar, that one would be inclined to believe some of them distinct species, if it were not for the narrow, spreading leaves of the involucrum, which have a very peculiar appearance, and which distinctly point them out. In the length of their leaves, in the colour of their flowers, and in their general stature, they are exceedingly unlike, some being as much as 6 or 7 feet high, others not more than 3 feet; some having remarkably long, narrow, recurved leaves, others straight and rather short ones; the flowers of some are violet, of others light blue, and finally of the variety before us white.

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* Suprà, fol. 1487.

Unfortunately our artist has paid no attention to the character of the involucrum, which is, therefore, in the accompanying figure extremely inaccurately represented. In reality it consists of a few very narrow, rather leafy, spreading scales, which seem as if they all originated from the same circle, and have a somewhat squarrose appearance: otherwise the figure is faithful enough.

1657.

Miss Drake del.   Pub by J. Ridgway 169 Piccadilly March 1. 1834.   S. Watts sc.

1657

BELOPÉRONE* oblongáta.

Oblong-leaved Beloperone.

DIANDRIA *MONOGYNIA.*

Nat. ord. Acanthaceæ. § Justicieæ Gendarusseæ *Nees.* (*Introduction to the natural system of Botany, p.* 233.)

BELOPERONE.—*Calyx* profundè quinquefidus, laciniis æqualibus latis v. latiusculis, tubo angusto. *Corolla* ringens, tubo labioque superiore concavo conicis rectis, inferiore labio trifido æquali. *Stamina* 2, tubo infra medium inserta. *Antheræ* bilocellatæ, locellis muticis v. basi calcaratis, in connectivo semisagittato-ovali obliquè distantibus altero altiore, in quibusdam, connectivo magis contracto, subcontiguis altero post alterum obliquè sitis. *Stigma* subulatum. *Capsula* à basi ad medium compresso-unguiculata asperma, apice tetrasperma. *Semina* colorata.——Inflorescentia: spicæ *axillares terminalesque, breves, secundæ.* Flores *alterni,* bracteis bracteolisque *æqualibus longis angustis.* Corollæ *speciosæ, coccineæ.* Nees ab Esenbeck in Wallich pl. as. rar. 3. 102.

B. *oblongata;* spicis axillaribus, bracteis bracteolis foliisque lanceolatis, antheris basi calcaratis. *Nees l. c.*

Justicia oblongata. *Link et Otto ic. pl. select. p.* 115. *t.* 54. *Willd. sp. pl. ed.* 2. 1. 381.

Frutex 2-3-*pedes altus, ramis teretibus ad geniculos parùm tumidis.* Folia *brevipetiolata, lanceolata, acuminata, glabra, atroviridia.* Spicæ *axillares, brevi pedunculatæ,* 2-3-*floræ, foliis breviores.* Bracteæ *lineares, acuminatæ, foliaceæ, calyce longiores.* Bracteolæ *conformes, sed angustiores et breviores.* Calyx *æqualis,* 5-*partitus, tubo brevissimo subcartilagineo: laciniis lineari-lanceolatis, pungentibus, apice pubescentibus.* Corolla *extus pubescens,* 1½ *unciam longa, roseo-purpurea, tubo conico recto, limbo bilabiato;* labium superius *rectum, concavum, integerrimum,* inferius *trifidum, æquale venis elevatis pictum.* Stamina 2, *rudimentis nullis sterilium;* filamenta *linearia;* antheræ *connectivo obcuneato membranaceo obliquo, loculis inæqualibus, altero breviore mutico, altero longiore basi brevicalcarato.*

A pretty species of hothouse plant, native of the Brazils, whence it was originally introduced into Prussia. Our

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* So called from βέλος, an arrow, and περόνη, a strap or band; in allusion to the arrow-shaped band which holds together the two cells of the anther.

drawing was made in September 1833, in the Nursery of Mr. Knight, who obtained it from France in 1832.

It is cultivated, like all the tribe, without any difficulty, and is easily multiplied by cuttings.

The name we have adopted is that proposed by Professor Nees von Esenbeck, in his admirable revision of the Natural Order to which this plant belongs. To some it may appear that the principle of division has been pushed by our learned friend too far, and that genera have been unnecessarily multiplied. But we confess we entertain a very different opinion; for surely nothing can possibly be more at variance with the modern principles of Botany than such a genus as Justicia, as left even in the new edition of Willdenow, published in 1831. It is quite a relief to turn from such confused and unintelligible masses of species to the definite and lucid arrangements of men like Nees von Esenbeck.

RÍBES* punctátum.

Dotted Currant.

◆

PENTANDRIA *MONOGYNIA.*

Nat. ord. Grossulaceæ *Dec.* (*Introduction to the natural system of Botany, p.* 54.)

RIBES.—Suprà, vol. 2. *fol.* 125.

R. *punctatum;* foliis trilobis serratis subtùs punctatis, racemis pendulis brevibus, bracteis oblongis ciliatis punctatis, calycibus flavicantibus. *De Cand. prodr.* 3. 482.

R. prostratum. *Ruiz et Pavon fl. Peruv.* 3. 12. *t.* 233. *f. a.*

Frutex *sempervirens, compactus, nitidus, resinosus.* Petioli *pubescentes et ciliati.* Racemi *pedunculati, penduli, primùm ovati, dein oblongi, denique laxiores.* Flores *luteo-virides.* Calycis *laciniæ parvæ, acutæ.* Petala *parva, oblonga, acuta, lutea, calyce inclusa.* Stamina *versùs basin tubi inserta.* Baccæ *parvæ, glabræ, virosimiliter fusco-virides.*

Rather a pretty evergreen shrub, native of Chile, near Valparaiso and Conception. It is remarkable for the shining yellowish green appearance of its leaves, and the short bunches of yellowish flowers.

It is hardy enough to live in a dry border without protection, and would probably succeed extremely well in the south of England in rocky situations. It flowers in April and May; but has never yet produced its fruit in this country.

Our drawing was made in the Horticultural Society's Garden, where it has been cultivated as a hardy shrub for several years. It strikes freely, like all the genus, from ripe cuttings.

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* See fol. 1237.

1659

[illegible]

STIGMAPHÝLLON* aristátum.

Awned Stigmaphyllon.

◆

DECANDRIA *TRIGYNIA.*

Nat. ord. Malpighiaceæ *Juss.* (*Introduction to the natural system of Botany, p.* 118.)

STIGMAPHYLLON Aug. de St. Hil. fl. bras. merid. vol. 3. p. 48.—*Calyx* 5-partitus, laciniis 4 basi biglandulosis. *Petala* inæqualia. *Stam.* 10, inæqualia et dissimilia; *antheræ* connectivo crasso glandulæformi. *Styli* tres, apice foliacei. *Samaræ* 3 v. abortu pauciores apice alatæ.——Frutices, *sæpiùs scandentes.* Folia *opposita v. ternata, rarò alterna,* petiolis *glandulosis.*

S. *aristatum;* foliis glabris sagittato-hastatis angulatis acutis lobis posticis truncatis margine passim aristatis, petiolis apice biglandulosis, samaris. . . . .

Caulis *volubilis, glaber.* Folia *caulina ut suprà descripta, ramulorum minora sæpè oblonga, integerrima.* Umbellæ *pedunculatæ, paucifloræ.* Glandulæ *calycis carnosæ, flavæ, semipellucidæ.* Petala *fimbriata, vitellina.*

A native of the tropical part of South America, and consequently requiring the heat of a stove. We are indebted to Mrs. Marryatt, of Wimbledon, for the specimen from which our drawing was taken. It had been received in that lady's extensive collection under the name of *Banisteria auriculata,* which is quite another species, but of the same genus.

A handsome climber, flowering in June, July, and August, and propagated by cuttings.

The different species of this genus are common in Brazil, from whence one would think they might be easily obtained. As they are all handsome climbers, they are well worth inquiring about.

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* So named in allusion to the singular circumstance of the stigmas of this genus being expanded into a sort of leaf.

[illegible] Drake del.

[illegible] Ridgway [illegible]

[illegible]

ONCÍDIUM* ciliátum.

Ciliated Oncidium.

◆

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ *Juss.* § Vandeæ. (*Introduction to the natural system of Botany, p.* 262.)

ONCIDIUM.—Suprà, vol. 13. *fol.* 1050.

O. *ciliatum;* pseudobulbis ovatis compressis monophyllis, foliis complicatis lineari-oblongis obtusis scapo erecto flexuoso apice paucifloro pluries brevioribus, sepalis undulatis lineari-oblongis obtusis: anteriore bilobo, petalis obovatis crispis, labello æqualiter tripartito sepalis breviore: laciniis obovatis sinubus suis latissimis fimbriatis, crista 5-corni cornubus posticis divergentibus anticis collateralibus tuberculis quibusdam interjectis, columnæ alis ovatis acutis. *Lindl. Gen. et Sp. Orchid. Plants, p.* 200.

This plant is probably not uncommon in some parts of Brazil. It originally reached the Kew Garden, where it flowered in February 1819, at which time a sketch of it was made by Mr. Bauer; it was afterwards obtained by Mr. Cattley, who had it for several years. Mr. Knight's rich collection in the King's Road supplied the specimen from which our figure was made, in October last: about the same time Mr. Booth sent us a drawing and specimen from Sir Charles Lemon's Garden; and two or three patches of it were lately received by the Horticultural Society from Brazil.

It is very nearly related to Oncidium barbatum, from which it may, however, be certainly distinguished by all the divisions of the lip being equal, and by its very dwarf habit. In colour its flowers vary, sometimes being yellow spotted with red, and sometimes the brownish orange of the accompanying figure.

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* See fol. 1542.

It will only grow in a hot damp stove; but succeeds best if tied to a piece of the branch of a tree. The following is Mr. Booth's account of the species:—

"This pretty little species of Oncidium has been cultivated for the last three years in the collection of Sir Charles Lemon, Bart., M.P., at Carclew, Cornwall, where it has annually, in November, produced its interesting and curiously-formed flowers. I do not know who has the merit of bringing it to this country, but believe it to have been received through some of the officers of his Majesty's Packet Establishment at Falmouth.

"*Pseudobulbs* ovate, compressed, one-leaved. *Leaves* slightly complicate at the base, oblong-obtuse, about 2 inches long and half an inch broad, with a little hook at the point. Their colour is a rich shining green, excepting where they are connected with the bulbs, which is brownish red. *Scape* nearly erect, small and round, from 4 to 6 inches high, and thickly covered with brownish spots; usually two-flowered. *Sepals* much undulated, brownish green, the two lower ones pointed, the three upper emarginate and rather shorter than the rest. *Labellum* bright yellow, and about the length of the upper sepals. The lower division is reniform and unguiculate; the other two are oblique, broad at their extremity, and somewhat crescent-shaped. The fleshy part in the centre of the flower is tuberculated, and beautifully marked with blood-red spots. The lower edge is finely ciliated. The column in front is of the same colour as the labellum; behind and at its base it is marked with deep red."

Drake. del. Pub by J. Ridgway 169 Piccadilly Ap. 1. 183 J. Watts sc.

1661

* CYCLOBÓTHRA alba.

White Cyclobothra.

HEXANDRIA *TRIGYNIA.*

Nat. ord. Liliaceæ, *Juss.* (*Introduction to the Natural System of Botany*, *p.* 279.)

CYCLOBOTHRA Sweet. *Flores* nutantes ventricosi v. campanulati. *Sepala* glabra, acuta. *Petala* majora et dissimilia, barbata, infra medium fovea glabra nectarifera altè impressa extus gibbosa. *Stigmata* 3. *Capsula* triptera, coriaceo-membranacea. *Semina* serie simplici affixa, angulata.——Bulbi *tunicati* Californici *et* Mexicani, foliis *planis acuminatis.*

C. *alba;* umbellâ 2-3-florâ, pedunculis bracteis brevioribus, floribus oblongis inflatis, petalis ovatis obtusissimis margine nudiusculis foveâ leviter impressâ sepalis ovato-lanceolatis duplò longioribus. *Bentham in Hort. Trans. n. s. vol.* 1, *p.* 413, *t.* 14, *fig.* 3.

Calochortus albus. *Douglas in litt.*

Caulis *teres, erectus, glaber, versus apicem ramosus,* 3-4-*florus.* Folia *glauca;* inferius *lineari-lanceolatum caule sæpe altius, basi sub terra brevissime vaginans;* superiora *multò breviora, pedunculos excedentia.* Flores *solitarii, v.* 2-3, *oblongi, ventricosi, nutantes, ovi columbini magnitudine.* Sepala *viridilutea, ovato-lanceolata, acuminata, glabra, petalis duplò breviora.* Petala *alba, oblonga, concava, obtusa, per omnem faciem sparsè barbata, sed pilis marginalibus inflexis vix ciliata; foveâ nectariferâ flavâ pilis absconditâ, extùs valdè gibbosâ.* Stamina 6, *hypogyna; antheris linearibus introrsis.* Ovarium *oblongum, tripterum.* Stigmata *tria, recurva.*

A Californian bulbous plant, introduced by the Horticultural Society, in whose Transactions it has recently been published by Mr. Bentham. Along with the following species, and some other plants from the same country, it forms quite a new class of Horticultural objects, of great interest; representing, at midsummer, which is their time of flowering, the Fritillaries and Tulips of the spring.

They are probably quite as hardy as Tulips, like which they should be treated; unless it should prove that their bulbs are capable of living all the year round in the open ground; a property we can hardly anticipate, considering how dry and mild a climate is that of California compared with England. In the Garden of the Horticultural Society, they have been planted in the open border, in a light loamy soil, in a cold frame, where they grew with considerable vigour, flowered beautifully, and produced some abundance of seed.

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* From κυκλος a circle, and βοϑρος a pit, in allusion to the circular depression from which the petals distil honey.

Mr. Bentham, in his remarks upon these plants in the Horticultural Transactions, observes — that "this species resembles very much the succeeding one, but the flowers are larger, the petals both longer and broader, of a whitish colour, marked towards the centre with a shallow pit, covered with inflected hairs, glabrous below it, above it slightly covered with scattered hairs, and almost naked at the border, where the few hairs that straggle so far are turned inwards, and by no means form a fringe as is the case in *C. pulchella.*"

He also observes, that "the *Calochorti* of Douglas with pendulous flowers, including the *C. elegans* of Pursh, belong certainly to the genus *Cyclobothra* established by SWEET, (British Flower Garden, 3, t. 173,) for the *Fritillaria barbata* of Kunth, and are nearer allied to Fritillaria than to Calochortus, but sufficiently distinct from either."

To this we may add that the *Cyclobothras* may not only be known by their nodding flowers, but also by the presence of a deep honey-pit a little below the middle of the petals, whence the latter have a humped appearance externally; while, on the contrary, *Calochortus* is destitute of the honey-pit, in room of which is only a slight discolouration; the seeds also are different in the two genera: in *Calochortus* they are flat and smooth; in *Cyclobothra* they are roundish and angular. The generic character of Calochortus may therefore be thus expressed:—

CALOCHORTUS, *Pursh.*—— *Flores* erecti, explanati, patentes. *Sepala* glabra, convoluto-acuminata. *Petala* majora, rotundata, plana, medio barbata, basi maculata, glabra. *Stigmata* 3. *Capsula* triangularis, coriacea. *Semina* serie simplici affixa, plana, testâ suberosâ——Bulbi *tunicati* Californici, foliis *convoluto-acuminatis, rigidis.*

1662.

Miss Drake. del. Pub by J. Ridgw 169 Piccadilly Ap. 1. 1834. S. Watts sc.

* CYCLOBÓTHRA pulchélla.

Deep-yellow Cyclobothra.

HEXANDRIA *TRIGYNIA.*

Nat. ord. LILIACEÆ. *Juss.* (*Introduction to the Natural System of Botany*, *p.* 279.)

CYCLOBOTHRA. Suprà, fol. 1661.

C. *pulchella;* umbellis 2-3-floris, pedunculis bracteis brevioribus, floribus globosis, petalis ovatis obtusis serrulato-fimbriatis foveâ valdè excavatâ extus callosâ, sepalis ovato-lanceolatis acuminatis vix brevioribus. *Bentham in Hort. Trans. n. s. vol.* 1, *p.* 415, *tab.* 14, *fig.* 1.

Calochortus pulchellus. *Douglas in litt.*

Caulis *erectus, teres, glaber, subcorymbosus, apice magis ramosus quam in præcedente, et humilior.* Folia *plana, acuminata, minùs glauca; superioribus brevioribus.* Pedunculi *bracteis foliaceis breviores, bini ternive.* Flores *globosi, minores quam in præcedente, lutei.* Sepala *virescentia, viridi-striata, petalis paululum breviora, acutissima.* Petala *ovata, barbata, fimbriata, basi glabra: foveâ nectariferâ pilis absconditâ.*

We doubt whether this plant likes the climate of England so well as the last; for although it grew with apparently perfect health, flowered freely, and ripened its seeds under the same circumstances as *Cyclobothra alba,* yet the specimens which were produced could not be compared with the wild ones sent home by Mr. Douglas for beauty. The latter consist of many-flowered and rather dense corymbs of flowers; but the cultivated plant hardly exceeded *C. alba* in the number of its blossoms.

Speaking of *C. alba,* we adverted to the nature of the differences that exist between Cyclobothra and Calochortus. Let us use the present opportunity as a means of explaining the affinity which the two genera bear to other plants.

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* See folio 1661.

We have been always accustomed to refer them to *Liliaceæ*, on account of their manifest resemblance to *Fritillaria*, and general accordance in other respects; and we scarcely expected that a different opinion could be entertained, notwithstanding the difference between the calyx and corolla, which seemed to point out a relationship to *Commelineæ;* all that we have ever considered that circumstance to indicate, was at most a tendency on the part of *Liliaceæ* to pass into Commelineæ. We find, however, in the last volume of Römer and Schultes' *Systema Vegetabilium*,— a work which, now that it is in the hands of Professor Schultes the younger, has become a most valuable collection of Botanical facts, notwithstanding that it has the misfortune to be arranged, in obedience to the will of the booksellers, according to the obsolete system of Linnæus. In this most useful work we find Calochortus referred to *Melanthaceæ.* For a long time we were at a loss to know how this singular opinion could have been formed; and we once thought that it must have arisen from the three parted style which is found both in Calochortus and Cyclobothra. But upon a more attentive consideration, we ascertained that the bulbs of all the species were described by Prof. Schultes, who appears to have seen none of them, as solid. The old expression *bulbus solidus*, which is a contradiction in terms, and which in fact means *rhizoma*, is employed upon the authority of Mr. Douglas, who inadvertently used in his descriptions the term *bulb solid*, instead of *bulb tunicated;* a technical difference which Mr. Douglas, who was little versed in the minutiæ of botanical phraseology, might naturally misunderstand. Now every Botanist must know that this discrepancy, however unimportant it may appear to the uninitiated, does in fact lead to most material errors in judging of affinity: for no Liliaceous plant has, or is likely to have a *bulbus solidus;* while it is the common character of Melanthaceæ, which are equally hexandrous. We therefore conclude that it is this that has led Professor Schultes to refer the plants to Melanthaceæ, and that, now he has become aware of his error, he will agree with us in referring them, without any doubt, to Liliaceæ.

As this genus is likely to become extensively cultivated, and as collectors will doubtless be glad to know where to seek for unintroduced species, the following list may be useful.

*1. C. pulchella. *Bentham, t.* 1662———California.
*2. C. alba. *id. t.* 1661———California.
3. C. *paniculata ;* floribus solitariis, pedunculis bracteis subæqualibus, floribus oblongis, petalis angustis obtusis subciliatis dimidiâ superiore calvis foveâ leviter excavatâ sepalis ovato-lanceolatis acuminatis duplò longioribus. —Præcedenti affinis ; caule, paniculâ, floribus solitariis, pedunculis bracteis longioribus, alabastris angustis, cæterisque satis distincta. Flores albi.—— In California Douglas, (*hab. s. sp.*)
4. C. elegans. *Bentham, l. c.*—Calochortus elegans. *Douglas.*———In California Septentrionali.
5. C. flava.—Calochortus flavus. *Schult. fil.*—Fritillaria barbata, *Kth.*——— In Mexico
*6. C. lutea ; *nob. t.* 1665.——— Cyclobothra barbata, *Sweet.*———In Mexico.
7. C. pallida ; *nob.*—Calochortus pallidus. *Schult. fil.*———In Mexico.
8. C. fusca ; *nob.*—Calochortus fuscus. *Schult. fil.*———In Mexico.
*9. C. purpurea. *Sweet.*—Calochortus Bonplandianus. *Schult. fil.*———Fritillaria purpurea. *Kth.*———In Mexico.

Of the above, those only marked * are, or have been in this country.

1663.

[illegible] Ridgway 169 Piccadilly Ap 1 1834

* CYCLOBÓTHRA lútea.

Pale Yellow Cyclobothra.

HEXANDRIA *TRIGYNIA.*

Nat. ord. LILIACEÆ, *Juss.* (*Introduction to the Natural System of Botany, p.* 279.)

CYCLOBOTHRA. Supra, fol. 1661.

C. *lutea;* caule bulbifero, pedunculis bracteis longioribus, floribus solitariis campanulatis, petalis rhombeo-ovatis acuminatis apice calvis sepalis calvis concoloribus longioribus.

Cyclobothra barbata. *Sweet Fl. Gard. t.* 273.

Caulis *gracilis, subsimplex, pedalis et ultra, lætè viridis, in axillis foliorum bulbillifer.* Flores *solitarii, nutantes, pedunculis bracteis longioribus.* Sepala *lutea, ovata, acuminata, intus glabra, nullo barbæ vestigio.* Petala *ovata subrhomboidea, apice angusta, facie barbata, sub medio foveata extus gibbosa.*

This pretty species was obtained some years since from Mexico by Mr. Tate, and has now become dispersed through many collections. It appears to grow freely in a light mixture of peat and loam, and to require no other protection than a good pit.

It represents a form of the genus in which the segments of the flower curve outward, instead of inward, and which consequently approaches still more nearly to Fritillaria than the kinds previously figured. If this difference were always accompanied by the property of bearing little bulbs in the bosom of the leaves, as happens in this and some others, it might perhaps be considered of generic importance. But it seems that *C. fusca* has no bulbs, although agreeing otherwise with the Mexican Cyclobothras; so that no ground can be said to exist for their separation.

When this plant was first introduced, it was supposed to be the same as the *Fritillaria barbata*, published in Mr. Kunth's account of the plants discovered by Humboldt and Bonpland; but we learn from the last volume of Römer and Schultes that that species has a bearded horse-shoe mark on its sepals, no trace of which can be found in the plant now figured. We are therefore unwillingly obliged to amend the name by which this has hitherto been known; a name which would be untenable, even if Fritillaria barbata were the same plant, because it is equally applicable to every species of the genus.

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* See folio 1661.

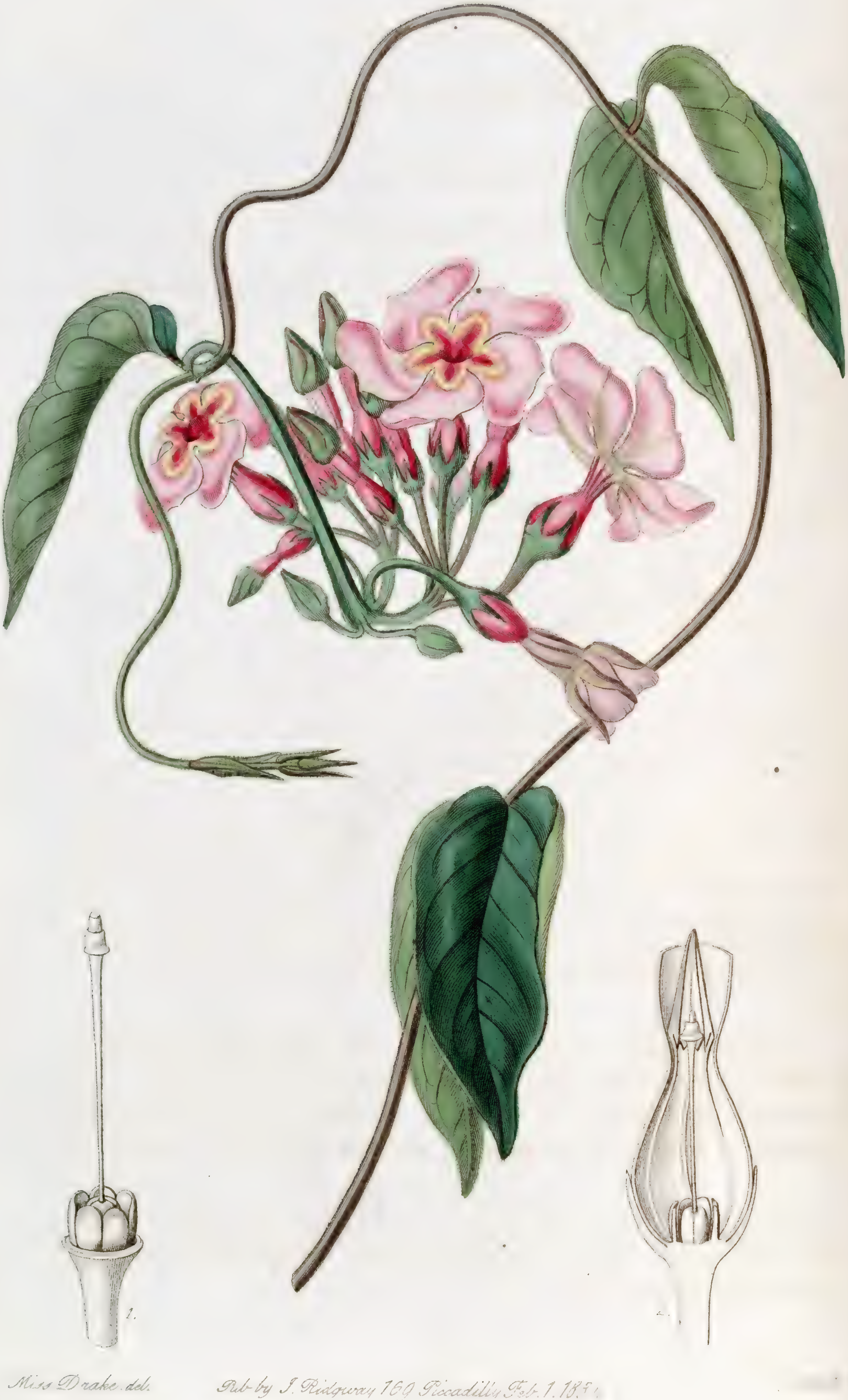
Among Mr. Douglas's unpublished Californian plants are three related to Cyclobothra, a short account of which may not be unacceptable to our botanical friends; they are all Fritillaries, and of remarkable appearance. The first has very much the aspect of *F. verticillata*, but the leaves are not cirrhose, and the flowers are greenish purple, spotted like *F. Meleagris*, growing in long racemes; this may be called *F. mutica*. The second, *F. liliacea*, is closely allied to *F. alba* of Nuttall, from which it differs in its broader leaves, and differently shaped capsule; it is a most remarkable plant, with the habit of a Lily; its flowers are apparently pale yellow, narrow at the base, and not unlike those of Lilium pudicum. The third, which may be called *F. biflora*, resembles *F. tulipifolia* in habit, but differs in its two-flowered stem, and numerous leaves which are either alternate or verticillate. The two first of these would be great additions to our gardens, if they could be procured; the last is a mere botanical curiosity, and chiefly interesting as shewing, along with *F. mutica*, how nearly the Flora of North West America, even in so low a latitude as California, approaches in some respects to that of Northern and Temperate Asia.

The distinctive characters of the three species may be expressed in technical language, as follows:—

Fritillaria mutica; caule basi longè nudo apice racemoso multifloro, foliis inferioribus verticillatis a lata basi longè angustatis ecirrhosis, floribus secundis tessellatis nutantibus basi obtusis bracteis triplo brevioribus, pedunculis brevissimis recurvis.——*In California, cum 2 sequentibus legit Douglas.*

Fritillaria liliacea; caule stricto apice racemoso basi folioso, foliis oblongo-lanceolatis inferioribus verticillatis superioribus alternis, floribus secundis concoloribus cernuis basi angustatis, pedunculis erectis bracteis longioribus, capsulâ oblongâ apice rotundatâ basi muticâ.

Fritillaria biflora; caule basi nudo apice bifloro, foliis verticillatis alternisve oblongo-lanceolatis versus apicem caulis deficientibus, floribus pendulis subcylindraceis concoloribus, pedunculis bracteis brevioribus.



Miss Drake. del.   Pub by J. Ridgway 169 Piccadilly Feb. 1. 18[illegible]

1664

*ECHÍTES stellàris.

Star-flowered Echites.

PENTANDRIA *MONOGYNIA.*

Nat. ord. APOCYNEÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 210).

ECHITES Linn. *Corolla* hypocrateriformis, fauce tuboque esquamatis, laciniis limbi quinquepartiti inæquilateris. *Stamina* inclusa. *Antheræ* sagittatæ, medio stigmati cohærentes, lobis posticis polline vacuis. *Ovaria* 2. *Stylus* 1, filiformis. *Squamæ* 5, hypogynæ. *Folliculi* graciles.——Frutices *volubiles* (Americæ meridionalis). Folia *opposita, ciliis interpetiolaribus glandulosis.* Pedunculi *interpetiolares, multiflori.* Flores *utplurimum speciosi, albi, lutei et purpurei.* R. Br. in Wern. Trans. I. 59.

E. *stellaris;* tota pubescens; racemis corymbosis longè pedunculatis horizontalibus v. recurvis, foliis ovato-oblongis acuminatis, corollæ tubo basi ventricoso conico medio constricto fauce stellatim coloratâ, caule volubili.

Caulis *volubilis omnesque aliæ partes, salvis corollâ calycisque laciniis, pilis brevibus densis mollibus holosericeus.* Folia *ovato-oblonga, acuminata, brevi-petiolata, supra atro-viridia, subtus lutescentia; inter folia adsunt, stipularum loco, ciliæ breves rectæ parum pilosæ, deciduæ.* Racemus *multiflorus, corymbosus, umbellam referens, longè pedunculatus, horizontalis; pedicellis sæpè refractis v. tortuosis.* Calyx *5-partitus, laciniis ovatis acuminatis; inter calycem et corollam adsunt squamæ 5, breves, sepalis oppositæ, deltoideæ, 5-partitæ glabræ, cum squamis hypogynis alternantes.* Corolla *odorata, carnea, carnosa:* tubo *medio constricto, basi ventricoso glutinoso, apice infundibulari;* fauce *notatâ stellâ latâ, 5-lobâ, purpureâ, ochraceo colore limbatâ; laciniis contortis inæquilateris rotundatis.* Antheræ *supra stricturam tubi insertæ, cartilagineæ, acuminatæ in conum supra stigma conniventes, intra tubum omnino inclusæ.* Squamæ *hypogynæ 5, oblongæ, rotundatæ, sepalis alternæ.* Ovarium *subrotundum.* Stylus *filiformis.* Stigma *incrassatum, basi truncatum, apice abruptè acutatum.*

A tender stove climber, introduced from Rio Janeiro to the Horticultural Society by the Hon. Robert Gordon. In the month of August, its flowers perfume the part of the hothouse in which it is placed, with a delightful smell of

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* The Latin name of the Birthwort, one of the twining species of Aristolochia. Its meaning being "serpentine," from εχις a snake, Linnæus applied it to the present twining genus.

Primroses. It grows readily in peat and loam, but is scarcely to be propagated except by cuttings of the root.

Although this is probably not of uncommon occurrence in Brazil, it appears to have been hitherto undescribed; the obscure *E. pubescens* of Willdenow, to whose character it nearly approaches, having heart-shaped leaves. We have named it with reference to the coloured eye of the corolla, which, being deep rosy red in the centre, with five starry lobes, bordered with a sort of orange-yellow, gives a striking appearance to the flowers.

It belongs to the genus in its strictest sense, as defined and most skilfully limited by Dr. Brown. In the dissections in the accompanying plate, figure 1 represents the style and stigma, and the five scales that surround the ovary; fig. 2, a perpendicular section of a part of the calyx and corolla, shewing the relative position of the ovary, style, stigma, anthers, and contracted part of the tube of the corolla.

1665.

[illegible] del. Pub by J. Ridgway & Sons 169 Piccadilly Ap. 1 1834 [illegible]

* ISMÉNE Amancáes; *var.* sulphúrea.

Sulphur-coloured Ismene.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Amaryllideæ. *R. Br.* (*Introduction to the Natural System of Botany, p.* 259).

ISMENE Herbert. *Scapus* solidus. *Corona* staminifera. *Tubus* curvatus, cylindricus. *Filamenta* brevia, tria in coronam deflexa, tria inferiora implexè conniventia. *Semina* carnosa, rotunda, viridia.———*Plantæ* Americanæ foliis *autumno depereuntibus.* Herbert in litt.

I. *Amancaes;* var. hybrida *sulphurea;* (matre I. Amancaes, patre I. Calathinâ) foliis octo tripedalibus parte inferiore pedali cylindraceâ, apice minus ac in I. Amancaes attenuato; scapo tripedali, compresso; spathâ marcescente, germine viridi brevissimè pedunculato; tubo viridi circiter triunciali, coronâ 2½-unciali sulphureâ fasciis sex internis viridibus luteo marginatis, lobis duodecim-dentatis; limbi laciniis 2½-uncialibus canaliculatis: umbellâ sexflorâ, odore gravi, neque (uti in Calathinâ) fragrante, neque (ut in Amancaes) fœtido.—*Herbert in litt.*

For the drawing, technical character, and following account of this plant, we are indebted to our highly valued correspondent the Hon. and Rev. William Herbert.

This very ornamental bulb was raised four years ago from a seed of Ismene Amancaes, which had been fertilized by the pollen of Ismene Calathina. It is interesting as confirming the generic character of Ismene, from which no intermixture with the cognate genus Hymenocallis has been produced, though many attempts have been made; and also by the great change which has been wrought in it by the impression of the male species. The colour of the flower is intermediate, and the scent, though very powerful, is not delightfully fragrant as in Calathina, nor so disagreeable as that of Amancaes. The constitution is vigorous, like that of the former species, from which it inherits also a more robust stature and less attenuated leaves. The natural seedlings of I. Amancaes make very slow progress. There is one twelve years old at Spofforth, which is not yet of flowering size; but those of I. Calathina advance rapidly. The flowers of the mule have a tube slenderer than that of Amancaes, and the cup terminating in twelve distinct lobes which are jagged at the margin: from the points where the filaments are inserted, six strong green lines, margined with yellow, mark the inside of the cup. Ismene Calathina thrives vigorously out of doors in a border of sand and peat mixed, and flowers in July and August, if the bulbs are planted out in April, and taken up when the leaves decay in November or October. The soil being loose and light, it is easy to avoid breaking their strong fleshy fibres, which should not be injured. The bulbs so taken up should be put all together in a large pot, or a small tub according to their number and size; and, some light soil being poured over them, they should be placed at the back of a greenhouse, or in any shed where they will be preserved from frost, and must have no water. I. Amancaes requires a much more sandy soil, and less moisture: if planted out of doors, a large pot full of soil should be taken out of the border where it is set, and the hole filled with pure white sand, and unless the summer is very wet it will succeed well. If kept in the greenhouse, it should be potted in very sandy compost, and be watered sparingly; and should be left quite dry from the time the leaves decay till May. Peat and too much water have caused many cultivators to lose this plant, which is not difficult to preserve. The Horticultural Society have imported an Ismene, which, unless it be a new species, is at least a variety of Amancaes with very different habits, spawning abundantly, and the leaves not sheathing high, of a hardier constitution, and less averse to moisture. Its flower has not yet been seen. W. H.

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* A classical name applied to this genus by Mr. Herbert. Ismene was a daughter of Œdipus.

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* CYPRIPÉDIUM spectábile.

Large white Lady's Slipper.

GYNANDRIA *DIANDRIA.*

Nat. ord. CYPRIPEDIEÆ. *Lindl. Nixus Plantarum, p.* 22, *No.* 234.
CYPRIPEDIUM. Suprà, vol. 10, *fol.* 788.

C. *spectabile ;* sepalis subæqualibus oblongis obtusis, petalis lanceolatis planis longioribus, labello petalis longiore ventricoso subsulcato, stamine sterili cordato-ovato obtuso.

C. spectabile. *Swartz in act. holm.* 1800, *p.* 251. *Salisb. in act. Linn.* 1. 78. *t.* 3. *f.* 3. *Willd. sp. pl.* 4. 144.
C. album. *Ait. Kew. ed.* 1. 3. 303. *Bot. Mag. t.* 216.
C. canadense. *Mich. Amer* 2. 161.
C. reginæ. *Walt. Carol.* 222. *fide Pursh.*

A native of the low meadows and bogs of North America, particularly in the mountainous tracts from Canada to Carolina, flowering in May and June, according to Pursh. Our wild specimens were gathered in Canada by Mr. Gouldie.

This remarkable plant is the finest of the North American Cypripediums, and is not by any means uncommon in the gardens of this country, its roots being periodically imported. It has, however, resisted all attempts at propagating it, and seldom lives above a year or two after its arrival. Those who manage it the best treat it as a greenhouse plant, keeping it constantly under glass, in a moderately warm atmosphere, and very near the light until its leaves have withered, when it is removed to a dry shelf till its growing season returns. Except in the colour of its flower, it is very nearly the same as the Siberian *C. macranthos,* already figured at fol. 1534 of this work.

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* See fol. 1534.

1667

1667

* CATASÉTUM lúridum.

Lurid Catasetum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Juss.* § Vandeæ *Lindl.* (*Introduction to the Natural System of Botany, p.* 262).

CATASETUM. Supra, vol. 10, *fol.* 840.

C. *luridum;* caulibus defoliatis angustis sulcatis, perianthio subgloboso parum maculato, sepalis petalisque oblongis apice rotundatis, labello cucullato carnoso mutico apice paulò producto truncato, racemo brevi nutante.

C. luridum. *Lindl. Gen. & Sp. Orch. p.* 156.

Anguloa lurida. *Link in Verhandl. des Vereins. z. bef. des Gartenb. in dem Königl. Preuss. Staat.* 1. *p.* 289. *t.* 6.

Caules *deflorati angusti, cinerei, sulcati,* 3-5 *uncias longi.* Folia *plicata, subundulata, acuminata.* Racemus *vix pedalis, apice nutans, pauciflorus;* bracteis *brevibus canaliculatis obtusis.* Perianthium *globosum;* sepalis petalisque *herbaceis oblongis apice rotundatis maculis quibusdam pallidis notatis.* Labellum *carnosum, cucullatum, lutescens, anticè truncatum subemarginatum, marginibus atro-purpureis maculatis, nec ciliatis, nec dentatis, nec inflexis.* Columna *bicirrhosa generis.*

After having been imported into Prussia some years since, and been apparently lost, this rare plant has suddenly made its appearance almost at the very same time in several collections. The first notice we had of it was from Messrs. Loddiges, with whom it flowered in September, 1833. Almost immediately afterwards, it was communicated to us by our amiable and much lamented correspondent the late Mrs. Arnold Harrison, whose truly splendid collection of Orchideous epiphytes has lately been added to the stock of Mr. Knight, of the King's Road; it was obtained by that lady from Bahia. We had scarcely secured a drawing of Mrs. Harrison's specimen, before a sketch and specimens reached us from Mr. Bateman; and before many more days had elapsed it burst into blossom in the stove of the Horticultural Society.

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* A name, the meaning of which is unexplained.

It is a native of the woods not only of Bahia, but probably of the greater part of Brazil, the Prussian specimens and those of the Horticultural Society having been imported from Rio Janeiro. Like all the species with similar habits, it grows freely in decayed vegetable matter, mixed with a little pure loam, among quantities of potsherds, and it probably will soon become common. Although it cannot be compared for beauty with Catasetum tridentatum, it is nevertheless a very interesting species; the spots on the margin of the lip are of the deepest and richest ruddy-brown; while the horns of the column may be compared to the forelegs of some spider lurking in the bosom of the flower to seize upon the victims that may enter it.

1662.

Miss Drake del. Pub by J. Ridgway 169 Piccadilly Ap. 1. 1834. S. Watts sc.

*BEGÓNIA herácleifòlia.

Parsnip-leaved Begonia.

MONÆCIA *POLYANDRIA.*

Nat. ord. BEGONIACEÆ, *Juss.* (*Introduction to the Natural System of Botany*, p. 169.)
BEGONIA. Supra, vol. 4, *fol.* 284.

C. *heracleifolia*; acaulis, foliis subæqualibus ambitu orbicularibus cordatis profunde septem-lobatis lanceolatis inæqualiter sinuato-sublobatis denticulatisque ciliatis utrinque rariter sparsim pilosis supra planis obscuris subtus pallidis vesiculiferis: nervis prominulis fuscescentibus hirtellis, petiolo pedunculoque patentim hirsutis. *De Schlecht et Chamiss. in Linnæa, vol.* 5, *p.* 603.
B. radiata. *Graham in Edinb. New Phil. Journal for July*, 1833.

Fructus *trialatus, glaber; alis rotundatis, duabus nanis herbaceis, alterâ roseâ elongatâ ascendente.*

A native of Mexico, where it was met with by the German travellers Schiede and Deppe, in several localities. In the Linnæa three are mentioned, namely, shady places in Jalapa, in March; near Hacienda de la Laguna in September; Baranca de Tioselo in October. It is therefore probable that it flowers nearly all the year round in its own country as it does in England.

The plant from which our drawing was taken was received by the Horticultural Society from the Botanic Garden, Berlin. It is a very free growing hot-house plant, producing its rosy flowers in every month of the year; all that it demands at the hand of the cultivator is heat, moisture and a full exposure to light. If kept too much in the shade, the flowers lose the bright rosy tint which is natural to them, and with it their beauty.

Our learned friend, Dr. Graham, who obligingly pointed out to us the identity of his *B. radiata* with *B. heracleifolia*, thus describes it:—" Leaves (seven inches across) bright green above, paler below, all radical, subpeltate, cordato-palmate, hairy above and below, with seven strong radiating nerves, very prominent below, lobes lanceolate, oblong, undulate, sinuated, dentate, unequal, the central (four inches from the insertion of the petiole to its apex) being the longest, the others gradually smaller to the sinus; petiole rather shorter than the middle lobe, densely covered with long coarse entangled crystalline hairs, which, in fading, resemble yellow wool. *Scape* (two feet high) tapering upwards, straight, pretty closely covered with oblong red streaks, from which spring long, tortuous, acute, crystalline hairs. *Bracteæ* in opposite pairs at each division of the flower-stalk, serrated, ovate, hairy, dentato-ciliate, nerved, smaller in every succeeding pair. *Peduncles* dichotomo-deliquescent, streaked like the scape, and somewhat hispid. *Flowers* rose-coloured, dipetalous, petals rotund, entire; male flowers in the cleft of the peduncles, expanding before the female. *Stamens* yellow, ascending; filaments cohering only at the base; anthers spathulate; connective extending beyond the loculaments."

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* See folio 1252.

The fruit, with which neither Messrs. Schlechtendahl and Chamisso nor Dr. Graham were acquainted, has three rounded wings, of which two are small and green, the third much longer, pink, and a little directed upwards.

1669.

Miss Drake. del. Pub by J. Ridgway 169 Piccadilly May 1. 1834. J. Watts. sc.

1669

* CALOCHÓRTUS venústus.

Spotted Calochortus.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Liliaceæ, *Juss.* (*Introduction to the Natural System of Botany, p.* 279.)

CALOCHORTUS Pursh. *Flores* erecti, explanati, patentes. *Sepala* glabra, convoluto-acuminata. *Petala* majora, rotundata, plana, medio barbata, basi maculata, glabra. *Stylus* o. *Stigmata* 3. *Capsula* triangularis, coriacea. *Semina* serie simplici affixa, plana, testâ suberosâ.—Bulbi *tunicati* (Californici), foliis *convoluto-acuminatis rigidis.*

C. *venustus ;* caule paucifolio subbifloro sepalis erectis, petalis præter fasciculum pilorum glabris basi rubris et versus apicem maculâ rubrâ notatis. *Bentham in Hort. Trans. vol.* 1, *n. s. p.* 412, *t.* 15, *fig.* 3.

Caulis *solidus, flexuosus, erectus, sub-bipedalis, striatus, apicem versus subramosus.* Folia *linearia, acuminata, siccatione convoluta, basi amplexicaulia.* Pedunculi *circiter* 4 *pollices longi, rigidi, uniflori.* Sepala *ovato-lanceolata, acuminata, recta, herbacea, petalorum longitudine.* Petala *cuneato-subrotunda, margine crispata, versus basin pulvillo pilorum longorum pilisq. quibusdam sparsis barbata, basi ipsa glabra ; alba, basi lutescentia, vittâ cuneiformi basilari coccineâ apice lutescente, tunc maculâ subrotundâ interruptâ castaneâ luteo-limbatâ, denique cis apicem maculâ pallidâ sanguinolentâ notata.*

A very remarkable and beautiful bulbous plant, sent from California by Mr. Douglas to the Horticultural Society, in the last part of whose transactions it has been published by Mr. Bentham. Like the *Cyclobothras*, lately figured in this work, it flowers at Midsummer, at which season it contributes, with some other species, to give quite a new feature to the flower garden.

It appears to be cultivated without difficulty, but to be less hardy than the species of Cyclobothra ; hitherto it has been planted in the open border in the summer only ; its bulbs have been taken up as soon as the leaves were withered; they have been kept dry till they begin to shoot, which is about Christmas; and they have then been planted in pots in the greenhouse, whence they will be again transferred to the open border as soon as the chance of spring frosts is over. In the garden of the Horticultural Society they have been tried both in common garden mould and in loam, and they seem to succeed equally well in either.

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* Supra, fol. 1152.

The stems grow about two feet high, and are sparingly clothed with rather stiff narrow green leaves, which quickly roll up, and become sharp-pointed when dry weather sets in. The flowers are placed on stiff stalks, and remain expanded for several days; but they offer so broad a surface to the weather, that they are apt to be damaged and defaced by storms of rain. The sepals are green; the petals are pure white at all the widest parts, and yellowish at the base, where they have a deep crimson wedge-shaped stain terminated by a yellowish spot; above the latter is a deep stain resembling a clot of dried blood, bordered with yellow, and between the last and the end of the petal is another and a paler spot of dirty red without any yellow. A short distance above the base of the petals there is a tuft of hairs which partly overspread the vicinity of the tuft.

1670

Miss Drake del.   Pub. by J. Ridgway 169 Piccadilly May. 1. 1834.   J. Watts sc.

* LUPÍNUS leptophýllus.

Fine-leaved Lupin.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 86).

LUPINUS. Supra, vol. 13, *fol.* 1096.

L. *leptophyllus;* annuus, caulibus erectis subsimplicibus patentim pilosis, foliis linearibus utrinque angustatis pilosis vix sericeis, floribus sparsis approximatis, bracteis ante anthesin subcomosis, pedicellis bracteolatis, calycis labio superiore bipartito inferiore longiore tridentato.—*Bentham in Hort. Trans. vol.* 1, *n. s. p.* 411.

Caulis *pedalis et ultra, simplex, ut et omnes partes herbaceæ, pilis longis albis debilibus patentissimis, brevissimis appressis intermixtis, hirsutus.* Folia *petiolis tenuibus, foliolis* 7-9 *linearibus longioribus.* Stipulæ *longæ subulatæ.* Racemus *gracilis, bracteis longis pectinato-villosis comatus.* Calyx *pilis longissimis villosus; bracteolis brevibus filiformibus, labio superiore bipartito inferiore longiore tridentato.* Petala *purpureo-lilacina, maculâ sanguineâ in medio vexilli;* carina *glabra.*

Upon this new Lupin Mr. Bentham has the following remarks in the last part of the transactions of the Horticultural Society:—

"This species is remarkable for its narrow leaves and hairy surface. It is about a foot high: the spike of flowers is elegantly coloured with blueish lilac, and there is a deep crimson stain in the middle of the standard. The spike is covered with flowers in an irregular manner, and crowned by the long linear bracts of the unexpanded blossoms. It is not so pretty a species as many others of this generally beautiful genus; it has hitherto produced but a very few seeds, which are unusually small for a Lupin, and pale brown, mottled with a darker shade. It probably requires shade."

Our drawing was made in the garden of the Horticultural Society in June last. The species is annual.

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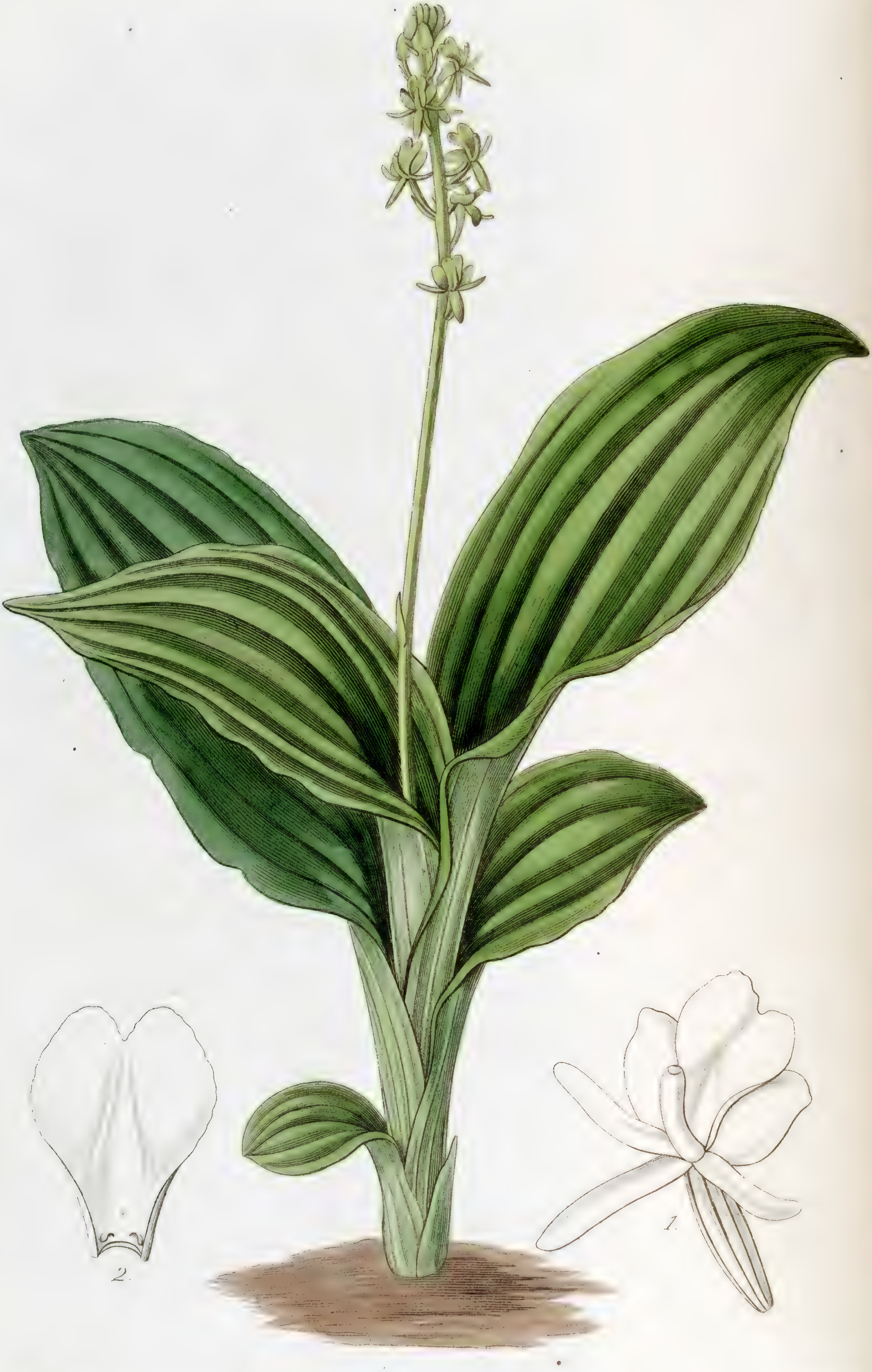
* See fol. 1198.

1671.



Miss Drake del. Pub by J. Ridgway 169 Piccadilly May 1 1834. J. Watts sc.

1671

* LÍPARIS guineénsis.

S. Leone Liparis.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Juss.* § Malaxideæ *Lindl.* (*Introduction to the Natural System of Botany, p.* 262.)

LIPARIS. Supra, vol. 11, *fol.* 882.

L. *guineensis ;* foliis pluribus oblongis acutis plicatis racemo paucifloro brevioribus, scapo angulato, labello postico cuneato bilobo plano basi bituberculato, petalis sepaloque supremo linearibus patentibus, sepalis lateralibus subrotundo-ovatis labello brevioribus.

Pseudobulbi *ovati, nucis avellanæ magnitudine, exuviis membranaceis foliorum vestiti.* Scapus *semipedalis.* Flores *parvi virides sessiles, maculis 2, lutescentibus in apice labelli.* Ovarium *alatum, bracteis lineari-subulatis longius.*

A native of Sierra Leone, whence plants were brought in 1832 by Mr. Whitfield. Our drawing was made in September last in the garden of the Horticultural Society.

It requires to be kept in a damp stove while growing, but to be removed into a cooler and dry place as soon as its leaves decay.

The *Liparis Löselii* of this country is nearly related to it, but is abundantly distinct in the leaves and the form of the labellum.

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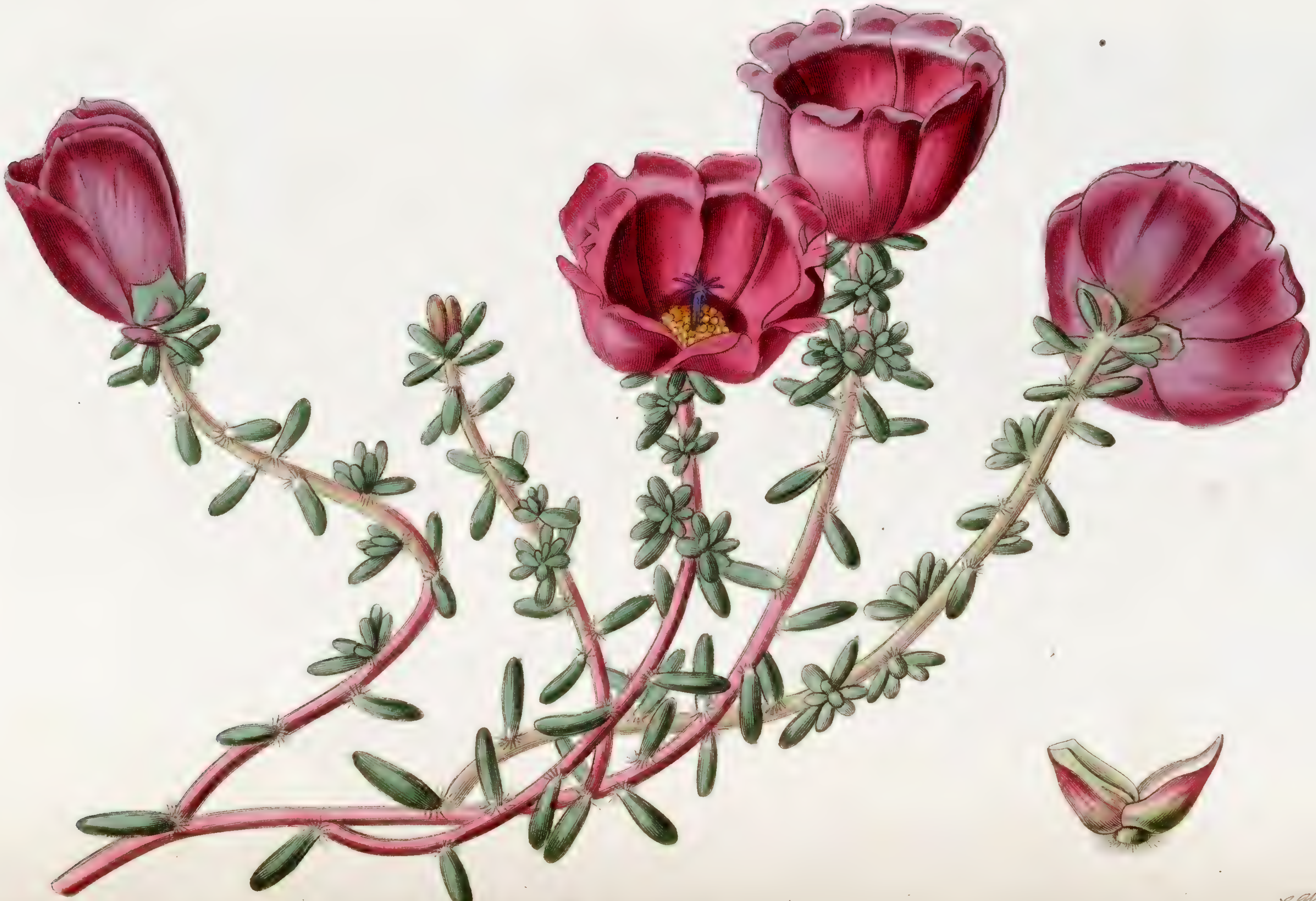
* See fol. 1175.

1672.



Miss Drake del.

Pub by J. Ridgway 169 Piccadilly May 1. 1834.

S. Watts sc.

* PORTULA'CA Gilliésii.

Dr. Gillies' Purslane.

POLYANDRIA *MONOGYNIA.*

Nat. ord. PORTULACEÆ, *Juss.* (*Introduction to the Natural System of Botany, p.* 159).

PORTULACA. Supra, fol. 792.

P. *Gilliesii;* caulibus suberectis basi ramosis, foliis oblongo-cylindraceis subcompressis obtusis punctatis, pilis axillaribus fasciculatis erectis appressis, floribus terminalibus, petalis calyce longioribus. *Hooker in Bot. Mag. t.* 3064.

Dr. Gillies, to whom we are so much indebted for many illustrations of the Botany of Chili and of the neighbouring province of Mendoza, brought seeds of this plant to the Botanic Garden of Glasgow, whence it has been liberally distributed. We are informed by Dr. Hooker that it is a native of the plains of Mendoza. This circumstance will point out the cultivation it requires; for the dryness of that climate is so well known, that it may be easily understood that the only chance of managing this plant successfully, consists in preserving it, during winter, in a well ventilated dry greenhouse or stove, and allowing it water only when in a growing state, and then only in moderate quantity.

It is a truly splendid plant; but to be seen in perfection it should be exposed to the greatest heat and the brightest light that our summers will supply. It then opens its rich crimson flowers in considerable quantity, and lying as they do upon a little bed of neat deep green leaves, the prettiest effect imaginable is produced.

It is a perennial, and is propagated readily by cuttings. Our drawing was made last July in the garden of the Horticultural Society.

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* An ancient Latin name, whose supposed origin has exercised the ingenuity of the learned, but concerning which we find nothing worth explaining or controverting.—*Smith.*

Miss Drake. del.

Pub by J. Ridgway 169 Piccadilly May. 1. 1834.

S. Watts. sc.

1673

* LIMNÁNTHES Douglásii.

Douglas' Limnanthes.

DECANDRIA *MONOGYNIA.*

Nat. ord. LIMNANTHEÆ. *R. Brown in Lond. and Edin. Phil. Mag. July*, 1833. *Lindley Nixus Plantarum, p.* 11, *No.* 31.

LIMNANTHES, R. Br. *Calyx* 5-partitus. *Petala* 5. *Stamina* 10. *Nuculæ* 5.—Herba *annua, carnosa, glaberrima* (Californica); floribus *conspicuis.*

L. Douglasii; *R. Br. l. c. Bentham in Hort. Trans. vol.* 1, *n. s. p.* 409.

Annua, pallidè viridis, succulenta, glabra. Caules *spithamæi, teretes, ramosi, in planta culta prostrati v. saltem decumbentes, in spontanea erecti.* Folia *alterna, exstipulata;* petiolo *tereti, suprà sulcato, patente;* laminâ *trifoliolatâ v. pinnatâ,* 2-3-*jugâ cum impari;* foliolis *lineari-ovatis integerrimis v. inæqualiter* 2-3-*lobis v.* 2-3-*partitis.* Flores *fragrantes,* ¾ *pollicis lati, axillares, solitarii, laxè racemosi, pedunculis filiformibus, ascendentibus ebracteolatis foliis longioribus.* Calyx *basi subcarnosus,* 5-*partitus, æqualis; laciniis ovatis acutis corolla brevioribus, quinqueveniis; venis lateralibus intramarginalibus simplicibus apice sepali cum intermedio confluentibus; æstivatione valvatâ.* Petala 5, *subperigyna, cuneata, retusa, lutescentia limbo albo, subsimpliciter venosa, æstivatione convoluta.* Stamina 10, *subperigyna; quorum* 5 *petalis opposita breviora sunt filamentis basi planiusculis,* 5 *sepalis opposita filamentis basi extus gibbosis:* Antheræ *oblongæ, biloculares, supra medium affixæ, versatiles, introrsæ,* (*in icone extrorsæ incuriâ pictoris*) *longitudinaliter dehiscentes.* Ovaria 5, *omnino disjuncta, sepalis ideoque filamentis gibbosis opposita.* Stylus *filiformis, laciniis* 5 *erectis teretibus stigmata tot minuta capitata gerentibus.* Fructus *calyce petalisque persistentibus induviatus, constans e nuculis* 5 *baccatis discoloribus rugosis monospermis.* Semen *erectum.* Embryo *exalbuminosus, cotyledonibus carnosis plano-convexis, radiculâ inferâ.*

A neat little annual, with flowers of a delicate yellow colour, bordered with white, and slightly but most agreeably fragrant. It is rather succulent in all its parts, is quite destitute of hairs, and has all the appearance of being a native of the sides of rivulets or of moist and shady places.

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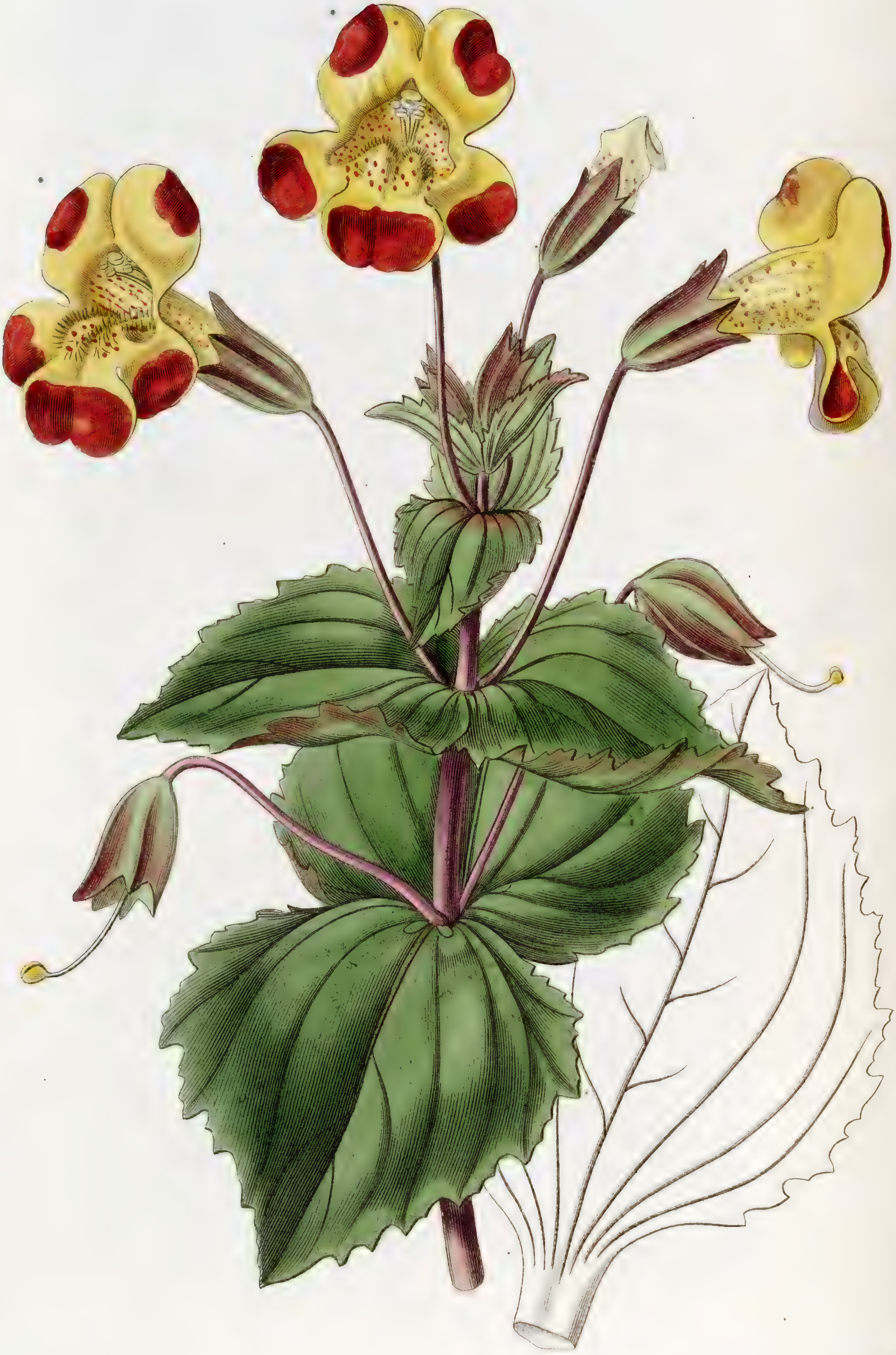
* Apparently from *λιμνη* a lake, and *ανϑος* a flower, in allusion to the supposed habits of the only species.

Concerning this, however, we have no information from Mr. Douglas, by whom it was sent to the Horticultural Society from California. It flowers in the autumn, and ripens seeds in tolerable plenty.

What gives it its chief interest is its remarkable structure, and the station it occupies in the natural system of plants. Dr. Brown, who first examined it, considers it to form, along with *Flörkea*, an obscure North American plant, a new Natural Order which he calls *Limnantheæ*, and stations near *Geraniaceæ* and their allies. In this view we have not hesitated to concur, although, as far as regards *Flörkea*, we had expressed a different opinion in the account we gave of that genus in Dr. Hooker's Journal of Botany. Without overlooking its manifest relation to *Geraniaceæ*, we had considered *Flörkea* to be upon the whole more nearly related to *Sanguisorbeæ* than to any other plants. But at that time *Limnanthes* was unknown, and we had nothing to connect *Flörkea* more with one Natural Order than another. Now that *Limnanthes* has been discovered, it becomes obvious that *Flörkea*, which is closely allied to it in structure, is more nearly akin to *Geraniaceæ* than to *Sanguisorbeæ*, and that it must constitute a new form in the groupe of Gynobasic Natural Orders. But while we admit this, it is necessary to add that we do not therefore give up the affinity of *Flörkea* to *Sanguisorbeæ*; on the contrary, we consider it one of the links by which the gynobasic and polycarpous groupes of Dicotyledonous plants are connected.

In the Analysis of the parts represented in the plate, 1. is the ovary, surrounded by the 10 stamens, the sepals and petals being cut away; 2. a stamen, with the projection at its base, *a.*; 3. the ripe fruit enclosed in the calyx; 4. a nucule separate; and 5. the same cut through horizontally, to shew the cotyledons of the embryo.

1674.



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Pub by J. Ridgway 169 Piccadilly May. 1. 1834.

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MÍMULUS Smithii.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. Scrophularineæ. *Juss.* (*Introduction to the Natural System of Botany, p.* 228).

MIMULUS. Supra, vol. 11, *fol.* 874.

Garden Variety.

Flowers of this beautiful plant were put into our hands last autumn by Mr. George Smith, Nurseryman, of Islington, who informed us he had raised it between *M. variegatus,* fertilized by *Mimulus luteus rivularis.*

It is a hardy plant, with all the habit of *M. luteus rivuláris,* and no doubt requires the same cultivation as that species.

1675.

Miss Drake del.

Pub by J. Ridgway 169 Piccadilly, May 1 1834.

J. Watts sc.

* PERNÉTTIA mucronáta.

Pointed-leaved Pernettia.

DECANDRIA *MONOGYNIA.*

Nat. ord. Ericeæ. *Juss.* (*Introduction to the Natural System of Botany, p.* 182.)

PERNETTIA Gaudichaud. *Calyx* 5-partitus siccus. *Corolla* globosa, limbo 5-dentato. *Stamina* 10, hypogyna ; *filamentis* basi dilatatis, *antheris* muticis: lobis apice angustatis bidentatis. *Ovarium* 5-loculare, polyspermum ; *squamis* 10 hypogynis ambientibus. *Capsula baccata* polysperma—Frutices (Australi-Americani), foliis *parvis sempervirentibus,* pedunculis *axillaribus paucifloris.*

P. *mucronata ;* foliis ovatis serratis mucronatis pedunculis laxis brevioribus, squamis hypogynis integris.

P. mucronata ; *Gaudichaud in Ann. des sc. vol. 5. p.* 102.

Arbutus mucronata ; *Lin. fil. suppl.* 239. *Forst. Comment. Gött.* 9. *p.* 31. *Graham in Bot. Mag. t.* 3093.

For the opportunity of publishing this interesting plant we are indebted to William Harrison, Esq. by whom it was communicated from his garden at Cheshunt, in July, 1833. It has there already acquired a size which is quite remarkable for so small a plant, considering how young the specimen still is. Within three years it has formed a bush three feet six inches in diameter, and two feet six inches high. It is a hardy evergreen shrub, of considerable beauty, on account of the neat appearance and dark colour of its foliage ; its flowers are pretty, but they are small, and do not make much appearance. Mr. Harrison cultivates it in peat, as an American plant.

It is usually called an *Arbutus ;* but it agrees with that genus neither in appearance nor in structure. In both

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* Named by M. Gaudichaud "after Dom Pernetty, the author of the account of a voyage to the Falkland Islands, a work remarkable for its interest as well as for its candour and exactness." The original species of the genus was mentioned by this traveller under the name of "*Bruyère à feuilles pointues.*"

Arbutus and *Arctostaphylos* the anthers have two long horns projecting from their back, and the ovary is surrounded by a fleshy ring with ten angles; but in this plant the anthers have no horns, and are split into four bristle-shaped teeth at their apex, while the base of the ovary is surrounded by ten distinct scales. We therefore adopt, without any scruple, Mons. Gaudichaud's genus *Pernettia*, which in reality is much more nearly allied to *Andromeda* and *Gaultheria* than to *Arbutus*, particularly to *Andromeda myrsinites* and *Gaultheria serpyllifolia*, which last is certainly no *Vaccinium*.

Gaudichaud refers to this genus *Arbutus pumila*, and *microphylla*; as far as habit and the structure of the flowers are concerned, *Arbutus pilosa*, of Professor Graham, would also be referable to *Pernettia*; but we incline to believe that plant an *Andromeda*.

The subject of these observations is a native of the Straits of Magellan; we have specimens communicated to the late Mr. Donn, of Cambridge, out of Forster's Herbarium, others procured by Macrae, off Cape Horn, and fruit gathered in Staten Island by Mr. Webster, of H. M. S. Chanticleer. Gaudichaud did not meet with it in his visit to the Falkland Islands, but in its place he found plenty of another species, *Pernettia empetrifolia*, which formed a small bush covered with eatable berries, and growing at the back of the sand-hills wherever a little vegetable mould was collected.

1676.

Miss Drake. del.   Pub by J. Ridgway 169 Piccadilly   May. 1. 1834.

* CALOCHÓRTUS spléndens.

Satiny Calochortus.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Liliaceæ, *Juss.* (*Introduction to the Natural System of Botany, p.* 279).

CALOCHORTUS. Supra, fol. 1669.

C. *splendens;* caule 3-5-floro, sepalis revolutis, petalis intus sparsè pilosis in parte superiori glabris basi maculatis extus ecostatis. *Bentham in Hort. Trans. vol.* 1, *n. s. p.* 411, *t.* 15, *fig.* 1.

C. venusto *similis habitu, staturâ, et figurâ florum; diversissimus tamen horum colore, petalorum hirsutie, sepalisque revolutis.* Petala *tota lilacina, immaculata nisi ad ipsam basin saturatiorem subsaccatam; ibi adest pulvillus pilorum densissimorum, brevium, rigidorum, a pilis longis debilibus sparsis faciei petalorum intervallo calvo sejunctus.* Flores *paulo minores sunt quam in* C. venusto.

Another fine species of Californian bulb, obtained by the Horticultural Society from Mr. Douglas. It requires precisely the same treatment as *C. venustus,* (fol. 1669) to which we refer our readers. From that species it differs, not only in the colour of its petals, but in its flowers being somewhat smaller, and its sepals rolled back from the point; the arrangement of the hairs upon its petals is also very different. In *C. venustus* there is just above the base of the petals an oblong tuft of rather loose hairs, which gradually scatter themselves over the petal for a short distance round the tuft; but in *C. splendens,* the tuft is smaller, and composed of very short firm hairs collected into a compact oblong mass, almost resembling a wart, and separated by a smooth interval from the scattered hairs of the petal, which are long and numerous.

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* See fol. 1152.

The genus Calochortus now consists of five species, of which the following is a list; those only marked with a * have yet been introduced into this country; all are natives of California.

*1. C. macrocarpus; *Douglas.—Bot. Reg. fol.* 1152.
2. C. nitidus; *Douglas in Hort. Trans.*
*3. C. splendens; *Douglas.—Bot. Reg.* 1676.
*4. C. venustus; *Douglas.—Bot. Reg.* 1669.
*5. C. luteus; *Douglas.—Bot. Reg.* 1567.

1077.

S. Drake del. Pub by J. Ridgway 169 Piccadilly June. 1. 1834. J. Watts sc.

*ESCHSCHÓLTZIA crócea.

Saffron-coloured Eschscholtzia.

ICOSANDRIA? POLYANDRIA? *TETRAGYNIA.*

Nat. ord. PAPAVERACEÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 8.)

ESCHSCHOLTZIA. Supra, vol. 14, *fol.* 1168.

E. *crocea*; caule ramoso folioso, foliorum segmentis linearibus, pedunculi cyatho infundibuliformi: limbo maximo dilatato, calyce longe acuminato. *Bentham in Hort. Trans. vol.* 1, *n. s. p.* 406.

Facies omnino *E. Californicæ*; sed flores majores aurantiaci, nec lutei, cyathi limbus maximus dilatatus, nec obsoletus, et calyx elongato-conicus, nec subrotundus acuminatus.

"In general habit, foliage, and size of the flower, this new species of Eschscholtzia closely resembles the E. Californica, introduced by Mr. Douglas on his first expedition, and now so generally admitted to be one of the most beautiful additions to our hardy ornamental plants. The present species, however, promises far to surpass even that one in the rich orange colour of the petals. It appears to be equally hardy, and, judging from the experience of a season, to flower still more freely. It is chiefly distinguished botanically from E. Californica by the widely expanded limb of the curious appendage of the peduncle beneath the insertion of the calyx, which is characteristic of the genus, and by the long attenuated point of the calyx."

We borrow the foregoing account from Mr. Bentham's paper in the Transactions of the Horticultural Society, adding only, that it has not hitherto produced any seed, and that two plants in the Garden of the Horticultural Society are all that at present exist in Europe.

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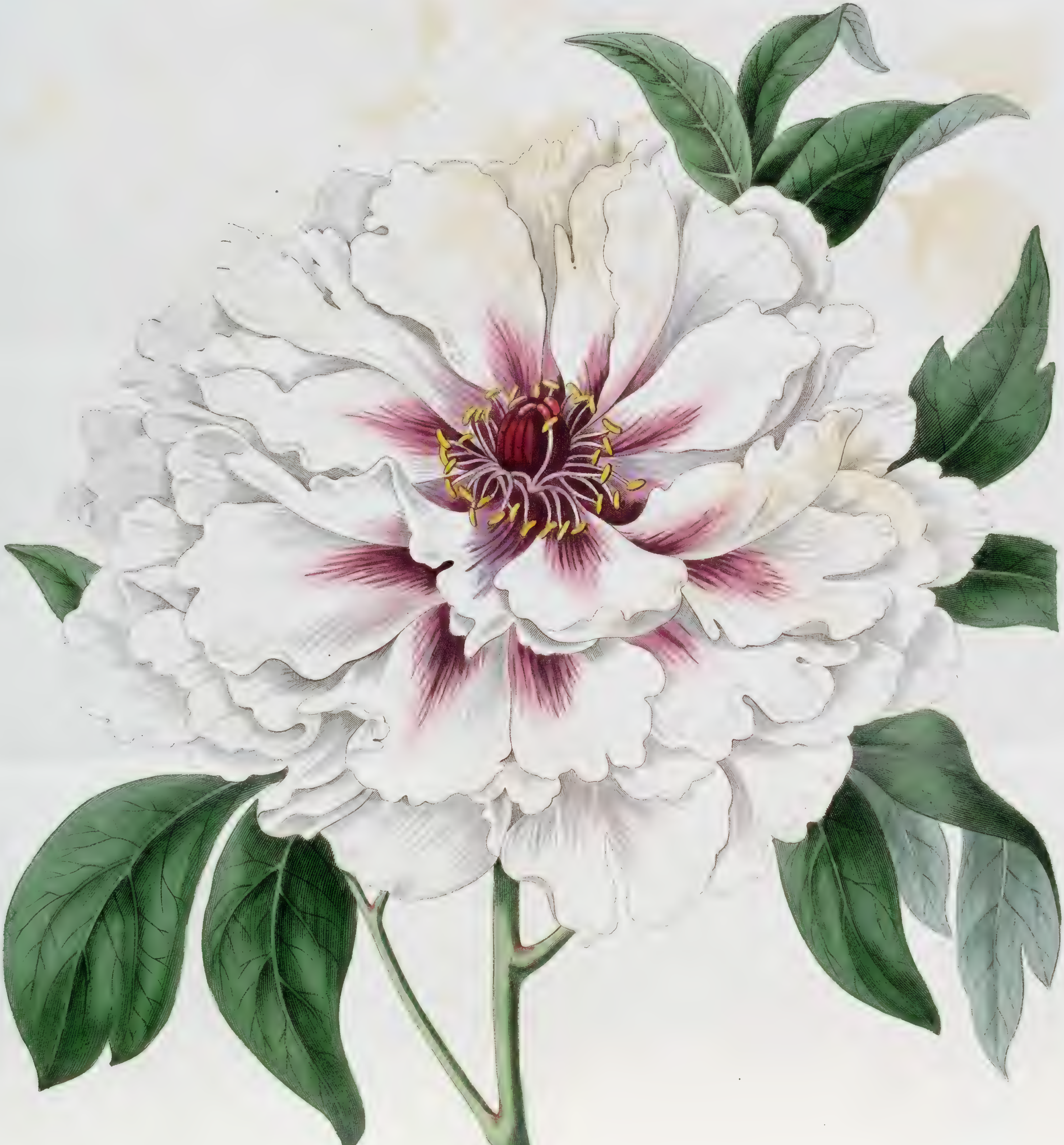
* See folio 1168.

When the sun shines, the petals unclose, and by their rich colour and velvety lustre produce an effect which for brilliancy is unrivalled in the Flower Garden.

Like *Eschscholtzia Californica*, this is a perennial, but in consequence of its bleeding copiously when wounded, it is not likely to bear propagation in any other way than by seed.

1678.



* PÆÓNIA Moutan; *albida plena.*

Double-white Tree Pæony.

POLYANDRIA *MONOGYNIA.*

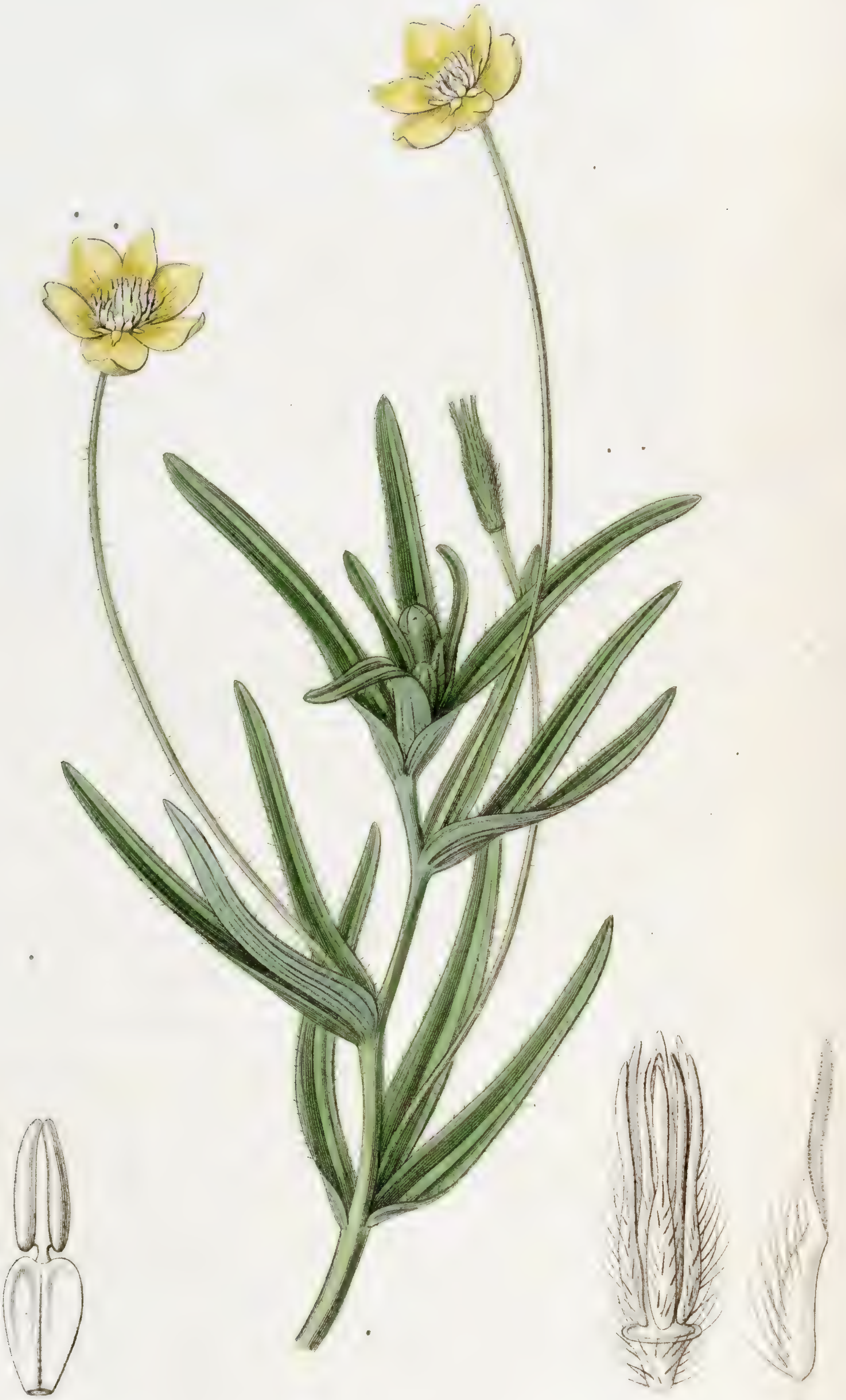
Nat. ord. RANUNCULACEÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 6.)

PÆONIA. Supra, vol. 1, *fol.* 42.

GARDEN VARIETY.

This noble variety of the Tree Pæony was raised by the Earl of Mountnorris from seeds of *P. papaveracea*, saved at Arley Hall. It differs from the original in being semi-double, and in having narrower and more lacerated petals. Our plate was prepared from a drawing lent us by Lord Mountnorris, in whose possession the plant, we are informed, almost exclusively exists.

1679.



Miss Drake. del.

Pub by J. Ridgway 169 Piccadilly June. 1. 1834

1679

PLATYSTÉMON Califórnicum.

Californian Platystemon.

POLYANDRIA *POLYGYNIA.*

Nat. ord. Papaveraceæ. *Juss.* (*Introduction to the Natural System of Botany, p.* 8.)

PLATYSTEMON Bentham. Flores trimeri! *Sepala* 3, hispida. *Petala* 6, ordine duplici. *Stamina* subindefinita; *filamentis* petaloideis; *antheris* linearibus rectis. *Carpella* 9-12, collateralia, stigmatibus linearibus erectis simplicissimis; *matura* leviter cohærentia, indehiscentia, cartilaginea, torulosa; in articulos transversos monospermos secedentia. *Semina* lævia, ecristata; albumine oleoso.——Herba (*Californica*), *annua*, *tenera*, foliis (*v. potius* petiolis dilatatis aphyllis) *linearibus paralleliveniis*, *alternis et verticillatis*, *sæpè unilateralibus*; floribus *terminalibus et axillaribus longe pedunculatis.*

Platystemon Californicum; *Bentham in Hort. Trans. vol.* 1, *n. s. p.* 405.

Herba *annua*, *erecta*, *subramosa*, *succulenta*, *pilis sparsis in pedunculis calycibusque rigidioribus rarò vestita.* Folia *lineari-oblonga*, *sessilia*, *obtusa*, *venis monocotyledonearum more parallelis*, *inferiora alterna*, *intermedia* 3 *uncias longa sub-verticillata*, *suprema minora situ variantia.* Pedunculi *axillares et terminales foliis quadruplò longiores*, *ascendentes*, *stricti*, *uniflori.* Sepala *tria*, *concava*, *decidua*, *Papaveris more.* Petala 6, *duplici serie disposita*, *ovata*, *pallide lutea*, *interiora paulò minora.* Stamina *plurima*, *numerosa*, *hypogyna*; *filamentis petaloideis*, *antheris linearibus lateraliter dehiscentibus*, *innatis*, *brevè unguiculatis.* Carpella 9-12, *dorso hispida*, *seriebus pluribus ordinata*, *omninò sejuncta*, stigmatibus *totidem linearibus erectis*; *matura subcalva*, *coriacea*, *torulosa*, *transversim in articulos monospermos secedentia*, *in formam cylindraceam aggregata*, *stigmatibus linearibus parum divergentibus terminata.*

A native of California, whence it was sent by Mr. David Douglas to the Horticultural Society, in whose garden it flowered last September; the few seeds it produced have failed to vegetate, and the plant is therefore lost to our gardens; fortunately, however, our drawing was made before the specimen had withered.

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* So named from πλατυς broad, and στημων a stamen, in allusion to the breadth of the filaments.

If it could again be procured, it would probably be preserved, for we are now more acquainted with its habits than we were at first; and it is evidently a pretty plant, if we are to judge from the dried specimens in the herbarium of the Horticultural Society. Both these and its seeds were sent home by Mr. Douglas without a particle of information as to the treatment it would require.

Mr. Bentham, to whom we are indebted for the first account of it, speaks of it as being as "interesting to the Horticulturist from its beauty as it is to the Botanist, from forming the connecting link between the Ranunculaceæ and Papaveraceæ. The trisepalous calyx, and numerous distinct ovaria would have placed it in the former order, were it not for the structure of the anthers, the very deciduous sepals, and the general habit, which do not admit of its being removed from Papaveraceæ, especially considering its close affinity with Eschscholtzia through Platystigma and Dendromecon.

"It is a low, branching, erect, and pale green annual, seldom attaining beyond a foot in height. The whole plant is smooth, with the exception of long spreading hairs on the peduncles, the margins, and here and there the surface of the leaves, and on the calyx and ovaria. The leaves are alternate, the upper ones often several, so near together as to have the appearance of an imperfect whorl; they are oblong, lanceolate, obtuse, perfectly entire, embrace the stem at the base, and are marked with from three to five parallel ribs. The peduncles are solitary, axillary, about six inches long, and bear at the extremity a single erect flower, rather larger than that of the common Helianthemum. The sepals are very hairy, round, ovate and obtuse; the petals yellow, with occasionally a reddish tinge outside. The flower is sweet-scented, and of a pale straw colour."

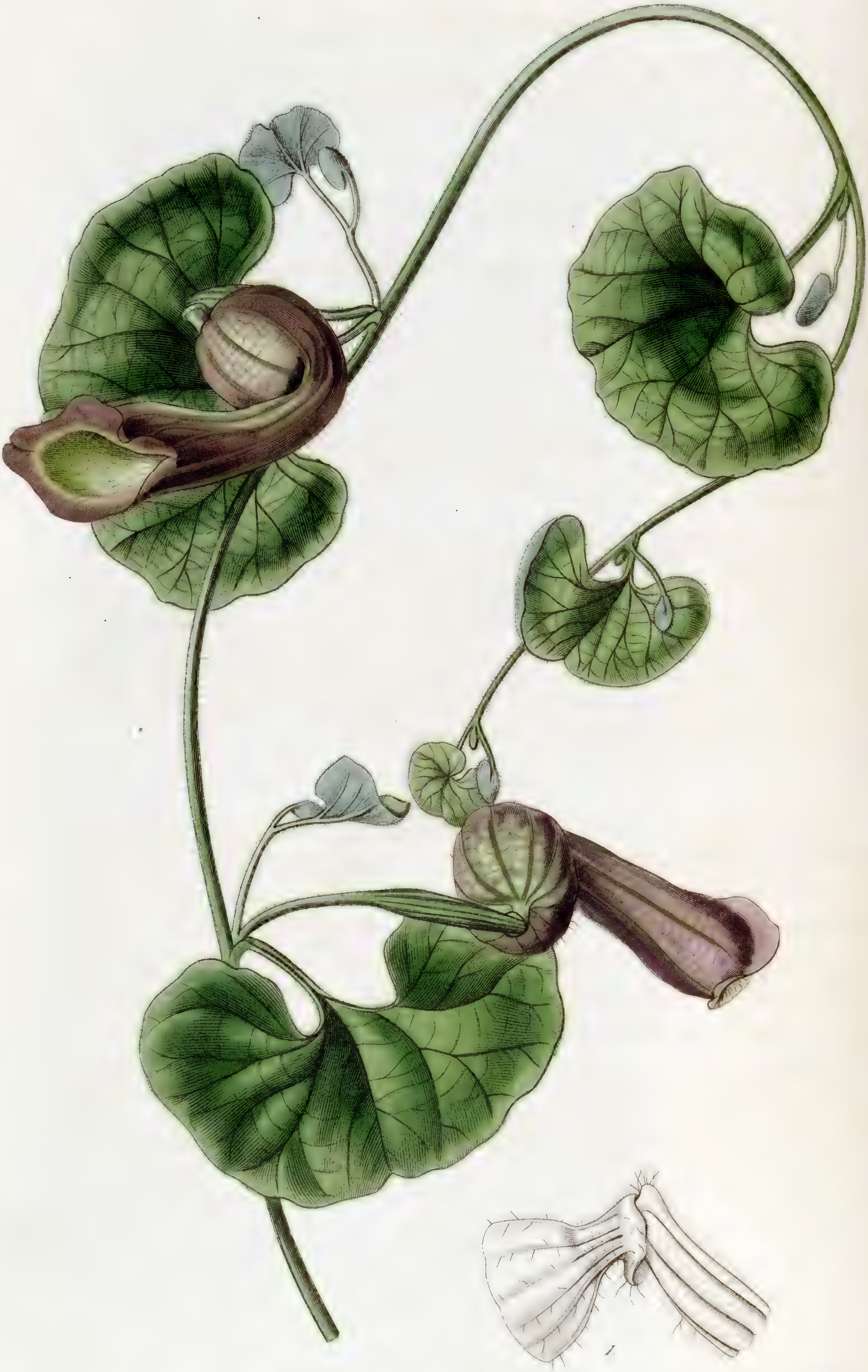
Considered in a botanical point of view, it serves to show the very close relationship that exists between the Crowfoot and Poppy tribes, to the former of which its distinct carpella, and to the latter its deciduous calyx and oily albumen so nearly equally refer it, that it might be a question in which of the two it ought with the greater propriety to be stationed. In fact, like Petunia in Solaneæ (see fol. 1626), this is a genus which stands on the very boundary line of two Natural orders, passing by one part of its structure into Papaveraceæ, and by another part into Ranunculaceæ, but with the mass of its characters preponderating in favour of the former. Its habit is also that of the Poppies rather than of the Crowfoots, and its curious fruit may be compared to that of Hypecoum, with the carpels separated and increased in number. The contractions of the sides of the carpels, in consequence of which the seeds are confined in little closed cells, occur equally in Hypecoum, but being of the same nature as those in the fruit of the Radish and its allies among Cruciferous plants, of Ornithopus and others among Leguminous plants, of several Anonaceæ, and of divers others, cannot be esteemed characteristic of one Natural order more than another; in fact, such fruits may be expected to occur in any and every polyspermous Natural order.

The following arrangement will serve to show in what order a series of genera to connect the Poppy with Platystemon, and the latter with Ranunculaceæ, would naturally follow; taking the Poppy for the typical centre of a Papaveraceous groupe.

Papaver — Meconopsis — Glaucium — Eschscholtzia — Hypecoum —Platyste-||-mon—Trollius, &c.

In the analysis of the accompanying plate, 1, represents a stamen; 2, a cluster of carpels; 3, a separate carpel, seen in profile.

1680.



Miss Drake. del. Pub by J. Ridgway 169 Piccadilly June. 1. 1834. J. Watts. sc.

1680

* ARISTOLOCHÍA Chilénsis.

Chilian Birth-wort.

GYNANDRIA *HEXANDRIA.*

Nat. ord. Aristolochiæ. *Juss.* (*Introduction to the Natural System of Botany, p.* 72.)

ARISTOLOCHIA. Supra, vol. 8, *fol.* 689.

A. *Chilensis;* herbacea, calycis infracti basi ventricosâ limbo oblongo obliquo utrinque emarginato intus villoso, pedunculis 1-floris ebracteolatis pubescentibus, foliis reniformibus emarginatis undulatis subtus pubescentibus.
A. Chilensis; *Bridges in litt.*

Caulis *volubilis, pubescens, angulatus, pilosus.* Folia *subtus pubescentia, breve petiolata, exacte reniformia, emarginata, subcochleata, supra læte viridia, subtus glauca.* Flores *axillares, solitarii, ebracteolati, pedicellis petiolorum longitudine, ovariisque pubescentibus.* Calyx *infractus, viridi-purpureus, venosus, intus villosus, extus læviusculus,* 2½ *poll. longus, basi ventricosus, sursum infundibularis; limbo obliquo, utrinque emarginato subcompresso.* (*Obs. basis calycis deorsum in pileoli speciem ovarii apicem tegentem producitur; v. analysin hujus tabulæ.*)

We do not discover any mention of this species among writers on South American Botany; and yet it appears to be very common in Chili, whence we have had many specimens gathered by various collectors. Mr. Bridges sends it under the name we have adopted, adding that it is called by the Chilenos *Oreja de la Zoera,* and that it is an herbaceous plant, found in stony places near Valparaiso and Quillota.

For our specimens we are indebted to Robert Bevan, Esq. who forwarded them to us in flower in September last. The plant is hardy enough to bear our climate, if protected from wet and the severest cold in winter. It may no doubt be increased readily by cuttings, and may soon be expected to become common.

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* See fol. 1399.

It is nearly related to Aristolochia glauca of the South of Europe, but is very different in the form of its leaves.

1687

T. Holland. del.

Pub by J. Ridgway.169. Piccadilly June. 1. 1834.

* BLÉTIA grácilis.

Slender Bletia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ, § EPIDENDREÆ *Lindl. (Introduction to the Natural System of Botany, p.* 262.)

BLETIA. Supra, vol. 17, *fol.* 1401.

B. *gracilis;* sepalis petalisque subæqualibus lanceolatis acuminatis, labelli trilobi lobis lateralibus nanis rotundatis intermedio transverso emarginato undulato: lamella solitaria in medio, foliis plicatis oblongo-lanceolatis acutis subtus discoloribus.

B. gracilis; *Lodd. Bot. Cab.* 1681.

Pseudobulbi *ovati, aggregati, purpurei.* Folia *plicata, membranacea, latitudine variabilia, sæpius unico tantum perfecto cuique pseudobulbo.* Scapus *terminalis, gracilis, purpuratus,* 1½ *pedem longus, erectus, calami corvini crassitudine, parcissime squamatus, apice racemum brevem 3-4-florum gerens.* Flores *subringentes, sepalis petalisque sordidè luteis, roseo versus apices suffusis; labello basi roseo venis picto apice luteo.*

A native of Mexico, whence it was introduced by the Messrs. Loddiges, of Hackney. Our drawing was communicated by James Bateman, Esq. from his collection at Knypersley, in July, 1833; we also received it in flower at nearly the same time from the Hon. and Rev. William Herbert.

It probably requires the treatment of *Bletia verecunda, acutipetala,* and *Shepherdi,* to all which it is nearly related; and it ought, when at rest, to be kept where it is in no degree exposed to circumstances that are favourable to its growth. Dryness, and a cool place at the back of a green-house, or even a common pit, protected from cold and wet, would probably suit it until the season for its growth returns, at which time it should be removed to a hot damp-stove, among tropical epiphytes, to remain there till its leaves decay; when that happens, it should once more be restored to a resting-house.

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* See fol. 1401.

The species is very distinct from any previously described.

1682.

Miss Drake. del.

Pub by J. Ridgway 169 Piccadilly June. 1. 1834.

[illegible]

* GÍLIA Achilleæfólia.

Milfoil-leaved Gilia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. POLEMONIACEÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 219.)

GILIA. Supra, vol. 14, *fol.* 1170.

Sect. 3. Eugilia. *Folia alterna, pinnatifida v. pinnatisecta.——Flores subsolitarii, v. sæpius glomerati. Corollæ tubus calyce subbrevior.* Bentham in Bot. Reg. fol. 1622.

G. *Achilleæfolia ;* caule erecto glabriusculo, foliis 2-3-pinnatisectis : segmentis lineari-subulatis, corymbis capitatis multifloris longissimè pedunculatis, calycibus sublanatis, corollis calyce duplò longioribus, staminibus corolla brevioribus. *Bentham, l. c.*

Herba *annua, læte viridis, ramosa, pedalis et ultra, glaberrima, salvis foliorum basibus ciliatis calycibus pedunculisque.* Corollæ *purpureæ ; stamina ad ipsos sinus inserta, limbo breviora, antheris cyaneis.*

A new hardy annual, sent from California to the Horticultural Society by Mr. Douglas. It resembles *G. capitata* in its foliage, and in the arrangement of its flowers; but its appearance is much more green, and its habit is dwarfish. The flowers, too, are purple, instead of sky-blue.

It will grow in any kind of soil, and produces seed in abundance, so that it will soon become as common as G. capitata itself.

Our drawing was made in August last, at which time the flowers first began to open. The plant continued in perfection till the beginning of December, when the cold nights killed it.

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* See fol. 1170.

1683.

Miss Drake. del. Pub by J. Ridgway 169 Piccadilly June. 1. 1834. J. Watts. sc.

1683

LINÁRIA Dalmática.

Dalmatian Toad-flax.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. SCROPHULARINEÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 228.)

Subtribus *Antirrhineæ ;* Chavannes.

LINARIA, Tournef. *Calyx* 5-partitus. *Corolla* personata ; tubo abbreviato inflato basi calcarato ; palato ad faucem prominente interdum depresso. *Capsula* valvulis dentibusve 4-10, v. operculis 2 dehiscens. *Chavannes Monogr. Antirrh. p.* 74.

L. *Dalmatica ;* glauca, ramosa, foliis oblongo-lanceolatis acutis approximatis, floribus ad summitates ramorum paucis et laxis, calycis segmentis oblongo-v. lineari-lanceolatis acutis glabris. *Chavannes, l. c. p.* 126.

——*Calcare corollæ æquali.*

Linaria grandiflora ; *Desf. coroll. inst. Tourn. p.* 30, *t.* 21. *Chavannes, l. c.*

——*Calcare corollâ multò breviore.*

Antirrhinum Dalmaticum ; *Linn. sp.* 857.

Linaria Dalmatica ; *Mill. dict. ed.* 8, *No.* 13.

Seeds of this handsome plant were gathered in Persia, and presented by Sir Henry Willock to the Horticultural Society, in whose garden a plant or two flowered about Midsummer last year. The shoots spring, with very few branches, straight from the ground, and rise to the height of two or three feet. They and the leaves are covered over with a dense bloom, which contrasts agreeably with the deep yellow of the showy flowers.

It has not produced seeds ; but as it is perennial, it may probably be increased without difficulty, by dividing the crown of its roots.

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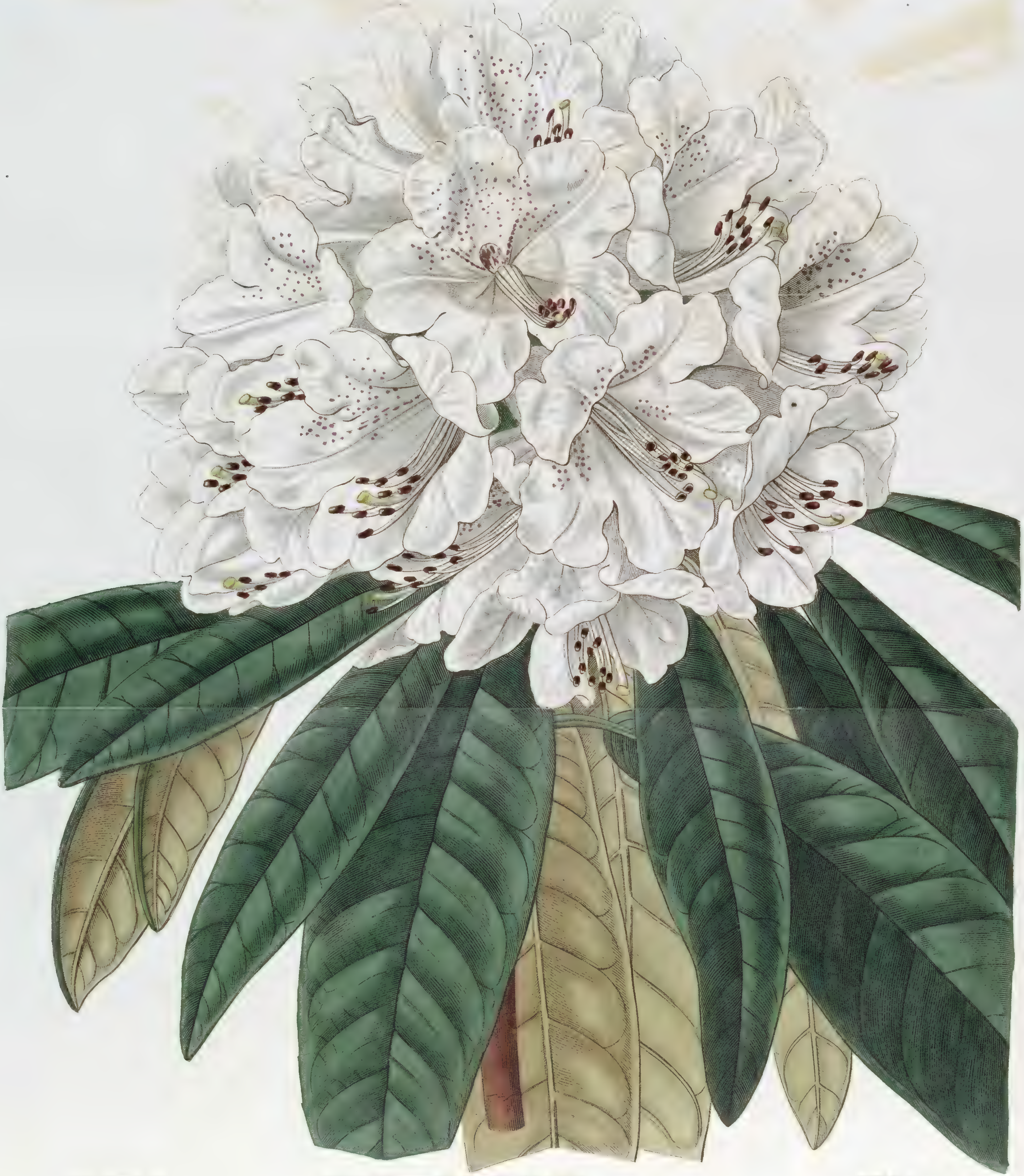
* An alteration of *Linum*, flax, which many of the species resemble before they flower.

That this Persian plant is the same as the Armenian and Dalmatian species, we cannot for an instant doubt. The only distinction that Monsieur Chavannes, in his elaborate and truly excellent monograph, was able to point out between them, consists in the greater length of the spur in this form of the species. But in all other respects it is so identical with the others, that it does not appear to us advisable to separate them even as varieties.

The range of the plant, then, in its wild state, will be from Dalmatia and Candia, in Europe, into Armenia and Persia.

It appears to be a hardy perennial.

1684



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* RHODODÉNDRON arbóreum; *var.* album.

White Tree Rhododendron.

DECANDRIA *MONOGYNIA.*

Nat. ord. Ericeæ. *Juss.* (*Introduction to the Natural System of Botany, p.* 182.)

RHODODENDRON. Supra, vol. 1, *fol.* 37.

R. *arboreum ;* foliis glabris lanceolatis subtùs micantibus, capsula valvulis 10, caule arboreo.

α. *sanguineum ;* floribus atrosanguineis, foliis subtus argenteis.

R. arboreum. *Supra, vol.* 11, *fol.* 890.

β. *roseum ;* floribus intensè roseis, foliis subtus ferrugineis. *Supra, vol.* 15, *fol.* 1240.

γ. *album ;* floribus candidis, foliis subtus ferrugineis.

R. arboreum album. *Wallich. Pl. As. rar. vol.* 2, *p.* 23, *t.* 123.

Never did we behold any flower more perfectly lovely than was this when we received it from the conservatory of Mr. Wells, in the month of February last. Its leaves of the richest and deepest green, mellowed by the warm tone of their under surface; its large clusters of bell-shaped flowers, hanging loosely yet compactly by their slender stalks, and the half transparent snowy corollas, without a stain or a spot, save what Nature had given them to render their whiteness the more pure and brilliant, formed together an effect which few objects could rival, and none surpass. Neither the rich crimson of the common Tree Rhododendron, nor the deep rose-colour of its pale variety, can for a moment be compared with that admirable delicacy which no art can imitate, and no pen describe.

Dr. Wallich, in his splendid *Plantæ Asiaticæ*, speaks thus of the native habits of this noble plant:—

" Both it and the rose-coloured variety are confined to the single mountain Sheopore, among those which I had an opportunity of visiting during my sojourn in Nipal, occupying the very summit of it, at an elevation of not less than 10,000 feet above the sea. I observed a considerable number of individuals, but it appeared to me that those with rose-coloured flowers were by far the most common. They attain the size of very large forest trees, and are noble objects at all times. They blossom simultaneously in April, in which state the beauty of them surpasses all description, the ample crown of the trees being entirely covered with bunches of large and elegant blossoms. The common red-flowered or parent species is likewise found on the abovementioned mountain, but it is less frequent there than in lower situations, where it blossoms a month earlier, that is, in March.

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* See fol. 1240.

"There cannot be the slightest doubt that the abovementioned trees are mere varieties of the common *Rhododendron arboreum;* and if it were necessary to adduce proofs of this, in addition to the fact that in every essential character they perfectly agree, I should mention that I have actually seen the white and rose-coloured sorts gradually change into each other, as well as into the colour of the parent tree. The only marks of distinction from the latter consist in the more or less brown colour of the lower surface of the leaves, which both varieties have in common, and the colour of the flowers, which in our variety is pure white, with a very slight tinge of pale pink on the base of two or three of the lobes of the corolla. I am convinced, moreover, that from the great elevation at which the varieties are found, they will prove hardy trees in this country; and that even the common Nipal *Rhododendron*, provided the individuals are derived from mountains not lower than that at which its varieties grow, will also stand the climate of England."

We regret to find that experience does not confirm the expectations of our learned friend; for all the Indian Rhododendrons appear to be incapable of enduring the climate of Great Britain. The only way to cultivate them successfully, is to treat them as hardy conservatory plants.

1685.

[illegible] del. Pub by J. Ridgway 169 Piccadilly July. 1. 1834. S. Watts sc.

1685

*TRITELEÍA láxa.

Loose-flowering Triteleia.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Asphodeleæ. *Juss.* (*Introduction to the Natural System of Botany, p.* 273.)

TRITELEIA Hooker. *Perianthium* tubulosum, subinfundibulare, marcescens. *Stamina* 6, duplici serie inserta; superioribus petalis oppositis. *Squamæ* hypogynæ nullæ. *Ovarium* sæpius stipitatum, raro sessile, polyspermum; *stigmate* trilobo.——Herbæ (*Austro et Boreali Americanæ*), cormis *induviatis.* Flores *umbellati.*

T. *laxa*; foliis linearibus glaucis scapo longioribus, involucro pedicellis duplo breviore, pedicellis laxiusculis perianthio basi angustato æqualibus, ovario longè stipitato, filamentis 6 decurrentibus basi cristatis, umbella multiflora.

T. laxa. *Bentham in Hort. Trans. vol.* 1, *n. s. p.* 413, *t.* 15, *f.* 2.

Involucrum *membranaceum, sæpè* 3-*phyllum, sed floribus numerosioribus polyphyllum; bracteis pedicellis brevioribus.* Umbella *multiflora,* (6—20), *laxiuscula.* Flores *cærulei, infundibulares, pedicellorum longitudine, circa ovarium marcescentes; laciniis ovatis, dorso viridi-costatis, exterioribus paulò angustioribus et acutioribus.* Stamina 6, *duplici serie ordinata, tubo adnata, filamentis elevatis basi incrassatis et crenulatis; superiora petalis opposita.* Ovarium *stipite longo curvo subhexagono impositum, oblongum, cyaneum,* 3-*loculare, polyspermum;* stylus *unicus brevis;* stigma *trilobum.*

Mr. Bentham remarks that this is "a very handsome plant, the scape of which is from a foot to eighteen inches high. Its flowers are about the size of those of *Brodiæa grandiflora*, and of the same deep blue colour. They grow in a lax umbel, but notwithstanding the length of their stalks stand nearly erect; the scape is, however, apt to be procumbent if not supported. It seeds freely, and will soon be very common."

No plant can be more easy to cultivate; it will grow in common garden soil, but prefers such a mixture of peat,

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*. From τρεῖς three, and τέλειος complete, in allusion to the perfectly ternary arrangement of its parts.

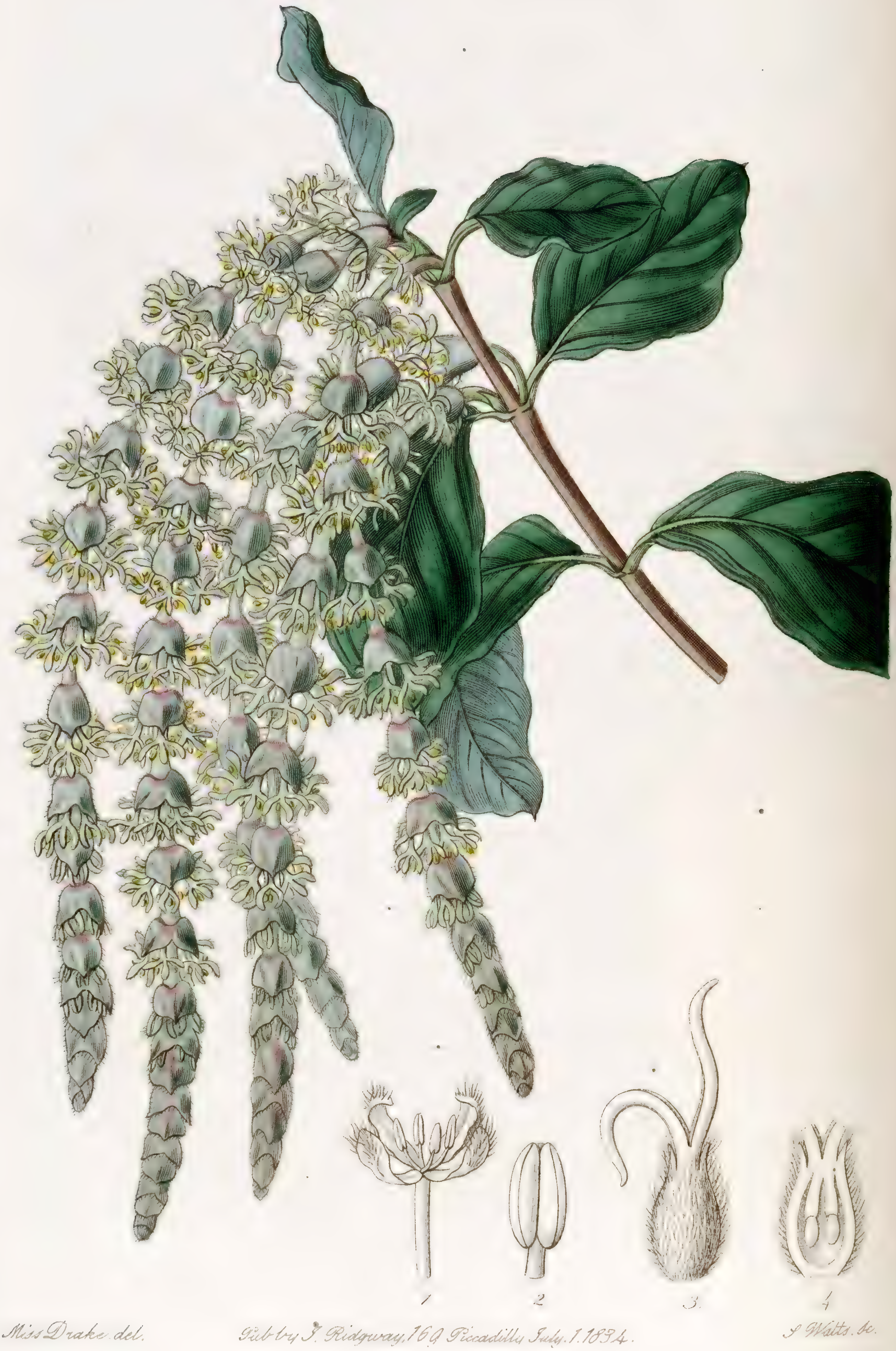
loam and sand as is found in a border for American plants; it appears to be perfectly hardy, and if allowed to remain undisturbed, it will propagate itself by offsets as well as by seeds. At the time when our drawing was made the plant was weak, in consequence of having suffered from a long voyage round Cape Horn ; it has now become stronger ; and we write with a specimen before us bearing 20 flowers in an umbel. It blossoms in June and July.

At fol. 1293 of this work we defined the genus Triteleia, describing briefly such species as we were then acquainted with. The discovery of this rendering it necessary to amend the characters of one of the species, we avail ourselves of the present opportunity of doing so, and of publishing a fifth.

T. *grandiflora* (Lindl. *Supra, vol.* 15, *fol.* 1293) ; foliis linearibus glaucis scapo erecto bipedali brevioribus, involucro pedicellis æquali, pedicellis strictis perianthio infundibulari vix æqualibus, ovario breviter stipitato, filamentis 3 decurrentibus basi callosis, umbella pauciflora.——North West America. Formerly cultivated in the garden of the Horticultural Society, but now lost.

T. *peduncularis ;* foliis linearibus scapo erecto bipedali brevioribus, involucro pedicellis quater breviore, pedicellis strictis perianthio obconico quater longioribus, ovario breviter stipitato, limbo perianthii tubo longiore, umbella multiflora.——California. Flowers apparently pale blue. Not yet introduced.

1686.



Miss Drake del.

Pub by J. Ridgway, 169 Piccadilly July. 1. 1834.

J. Watts sc.

1686

* GÁRRYA ellíptica.

Elliptic-leaved Garrya.

DIŒCIA *TETRANDRIA.*

Nat. ord. GARRYACEÆ.

GARRYA. Dioica. ♂. *Calyx* tetraphyllus. *Stamina* 4.— ♀. *Calyx* superus, bidentatus. *Ovarium* 1-loculare; *stylis* duobus setaceis; *ovulis* duobus ab apice funiculorum totidem pendulis. *Pericarpium* baccatum, indehiscens, dispermum. *Embryo* minimus, in basi albuminis carnosi.——Frutex (*Boreali-Americanus*). Folia *opposita, exstipulata.* Flores *intra bracteas connatas, in spicis amentaceis pendulis dispositi.*

Garrya elliptica. *Douglas in herb.*

Frutex *dioicus, in hortis 3-4-pedalis, verosimiliter ferè orgyalis;* ramis *junioribus pubescentibus viridi-purpureis, adultis lævibus, viridi-griseis, rimosis.* Lignum *zonas nullas ostendit concentricas: sed maximâ pro parte e tubis ligneis constat granulis olivaceo-fuscis punctatis, circa medullam copiosam in lamellis, processubus crassis medullaribus separatis, radiatim ordinatis;* vasis *paucis annularibus reticulatisve inter lignum sparsis; nullis punctatis interjectis.* Folia *exactè opposita, exstipulata, undulata, brevè petiolata, oblonga, acuta, coriacea, sempervirentia, supra atro-viridia glabra, subtus pilis simplicibus tortilibus intertextis pubescentia et cana; venis pennatis, primariis intra marginem incurvis.* Flores *in amentis longis pendulis caudæformibus aggregati, e bracteis constantibus, pubescentibus, incanis, oppositis, connatis, cuspidatis, decussantibus, persistentibus;* masculi (*fig.* 1), *cuique bracteæ* 3, *pedunculati;* sepalis 4, *linearibus, pallidè viridibus, membranaceis, pilosis;* staminibus *totidem sepalis alternis et brevioribus;* antheris *oblongis, introrsis, bilocularibus, longitudinaliter dehiscentibus,* (*fig.* 2); fœminei (*fig.* 3) *villosi, cuique bracteæ* 3, sepalis 2, *minimis superis stylos decussantibus,* ovario *infero, 1-loculari,* ovulis *duobus ab apice funiculorum brevium pendulis,* stigmatibus *duobus subulatis* (*ovario intermedio anticis posticisque, lateralium dextrorsis sinistrorsisque*). Fructus *in amentis dispositi, baccati, pubescentes, oblongi, uniloculares, dispermi, stigmatibus persistentibus coronati.* Semina *oblonga;* testa *exteriore tenui, suberosa, interna transversè corrugata, brunnea,* chalazâ *conspicua ad apicem rapheque elevata ab hilo ducente.* Albumen *carnosum, homogeneum,* embryone *minimo dicotyledoneo,* radiculâ *hilo proximâ ideoque quoad fructum superâ.*

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* Named by Mr. Douglas in compliment to Nicholas Garry, Esq. Secrecretary of the Hudson's Bay Company, to whose kindness and assistance he was much indebted during his travels in North-west America.

Sub Germinatione *embryo elongatur et axin albuminis occupat, cotyledonibus simul dilatantibus; tunc, hili coleoptile elevato, cauliculus promitur incrassatus, deflexus, cito in radiculam corrugatam mutatus;* plumula *demum se tollit e medio cotyledonum semper intra semen latentium, more* Quercus *aliarumque* Cupuliferarum.

A hardy evergreen shrub, native of Northern California, where it was discovered by Mr. Douglas. It was introduced in 1828, and a male plant flowered for the first time in October last in the garden of the Horticultural Society. In appearance it is very similar to a *Viburnum*, and like that genus is readily increased by layers. It has generally been cultivated in peat, but it certainly prefers a loamy soil.

Although this plant cannot be compared for beauty to the *Berberries*, *Ribes*, *Lupines*, *Pentstemons*, *Clarkias*, *Calochorti*, and other fine things discovered by Mr. Douglas, it is probable that it is the greatest botanical curiosity in all his collections; for it appears to represent a Natural order on the one hand altogether distinct from any previously known, and on the other connecting certain well known Natural orders in an unexpected and satisfactory manner.

In its amentaceous inflorescence, imperfect flowers, superior calyx, and mode of germination, *Garrya* is very similar to *Cupuliferæ*, from which it differs most essentially in its wood without concentric circles or dotted vessels, its opposite exstipulate leaves, simple fruit, and minute embryo lying in a great mass of albumen.

The latter characters bring it near *Piperaceæ* and their allies, especially *Chloranthеæ*, with which its zoneless wood (for *Chloranthus* has no annual zones), simple fruit, and opposite leaves also agree; but the stipules of *Chloranthеæ*, together with its achlamydeous bisexual flowers, and articulated stems, distinctly separate that order.

Urticeæ and *Stilagineæ* may also be compared with *Garrya* on account of their imperfect unisexual flowers, somewhat amentaceous inflorescence, and simple fruit; but their superior fruit, alternate leaves, and more perfectly formed wood are important points of difference.

Gnetaceæ, a naked-seeded order, consisting at present of the genus *Gnetum* alone, most essentially distinguished from *Coniferæ* by the veining of its leaves, its jointed stems, zoneless wood, and more complete vascular system (for it certainly abounds in true spiral vessels, contrary to the observation of Mr. Adolphe Brongniart), and forming a connecting link between *Piperaceæ* and *Taxineæ*.——*Gnetaceæ* may also be compared to *Garrya* on account of their opposite exstipulate leaves, amentaceous unisexual flowers appearing from the axillæ of connate bracteæ, their minute embryo lying in a great mass of albumen, and imperfect zoneless wood, which in both cases is chiefly constituted of woody fibre (the sides of which are marked with numerous brownish granules), and of annular and reticulated vessels lying scattered sparingly among the tubes of woody fibre.

Finally, *Henslovia*, an imperfectly known genus, with regularly zoned wood filled with dotted ducts, like those of *Ulmus*, is not to be overlooked in comparing *Garrya* with other genera, on account of its imperfect unisexual flowers and opposite exstipulate leaves; but the Natural order (*Hensloviaceæ*) of which it must be considered the type, is too little known to enable us to carry the comparison further.

Garrya, then, proves to be essentially different from any known order, and to constitute the commencement of a new natural groupe, to which the following characters may be assigned.

GARRYACEÆ.

Dicotyledones, incompletæ, rectembriæ, inarticulatæ; *ligno* exogeno, ezonato; *foliis* oppositis, exstipulatis; *floribus* unisexualibus, monochlamydeis; *ovario* infero, monocarpo, oligospermo; *ovulis* pendulis; *embryone* minimo, in basi albuminis carnosi; *germinatione* intraseminali.——*Cupuliferis* affines, easque cum *Coniferis* connectentes per *Chlorantheas* in *Gnetaceis* transeuntes.

Fig. 1 represents a barren flower; 2, an anther; 3, a fertile flower; 4, a vertical section of the latter.

1687.

Miss Drake del. Pub by J. Ridgway 169 Piccadilly July 1 1834. [illegible]

1687

[*] GEODÓRUM fucátum.

Painted Geodorum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Juss.* § VANDEÆ, *Lindl.* (*Introduction to the Natural System of Botany, p.* 262.)

GEODORUM. Supra, vol. 8, *fol.* 675.

G. *fucatum ;* scapo florifero foliis duplò breviore, spicâ pendulâ congestâ, labello gibboso ovato emarginato integerrimo : lineis duabus callosis elevatis.

Folia *e tubere subterraneo annulatim cicatrizato erumpentia, oblongo-lanceolata, acuta, plicata, pedem longa, scapo florifero duplo longiora, frugifero subæqualia.* Scapus *radicalis, erectus, vaginatus, apice recurvus, et spicam ideo pendulam, partibus omnibus inversis, compactam, brevem gerens.* Bracteæ *lineares, acutæ, ovarii longitudine.* Flores *subcampanulati, magnitudine et facie* G. dilatati. Sepala *lineari-oblonga, acuta, rosea, apice paululum recurva petalis paulò latioribus omninò conformia et parallela.* Labellum *ob spicam inversam, anticum, revera posticum, ovatum, concavum, subtus gibbosum, cum columna parallelum et continuum nec articulatum, integerrimum, emarginatum ; roseum, venis lateralibus intensioribus pictum ; lineis duabus latis, elevatis, parallelis, contiguis, ochraceo-sanguineis, in medio.*

A single plant of this new species of Geodorum sent to the Horticultural Society from Ceylon by Mr. Watson, in 1832, flowered in the Chiswick garden last July. It resembles *G. dilatatum* figured in tab. 675 of this work ; but has rather smaller flowers, and a very different labellum.

It thrives in a hot, damp stove, but requires to be rested after its leaves have withered.

Fig. 1. represents the labellum seen from above; fig. 2. the column and labellum after the other parts of the flower have been removed.

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[*] From γῆ the earth, and δῶρον a gift.

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1688

* SPHÆROSTÉMA propínquum.

Small-flowered Sphærostema.

DIŒCIA *POLYANDRIA.*

Nat. ord. ANONACEÆ *Juss.* § SCHIZANDREÆ *Blume.* (*Nixus Plantarum* 9.)

SPHÆROSTEMA, BLUME.—Dioicum. *Sepala* 6, duplici ordine digesta, exterioribus minoribus. *Petala* 3. *Stamina* maris in globum coadunata, indefinita, *filamentis* omnino v. pro parte tantum connatis. *Carpella* indefinita, disperma; *matura* baccata, receptaculo longissimo spicatim disposita. *Semina* reniformia; albumine carnoso, homogeneo.———Frutices (*Asiaticæ*) *volubiles, aromaticæ, glabræ.* Folia *dentata.* Flores *axillares.*

S. *propinquum ;* foliis ovatis acuminatis dentatis, floribus subsolitariis petiolo æqualibus, petalis ciliatis, antheris immersis.

S. propinquum, *Blume.*—*Wall. Cat. No.* 4986.

Kadsura propinqua. *Wall. Tentamen, p.* 11, *t.* 15.

Frutex *volubilis, glaber, aromaticus.* Lignum *more* Stauntoniæ *zonas nullas annuas ostendit, sed mera est congeries tuborum ligneorum radiatim medullam copiosam circumstantium, et processubus tenuibus medullaribus continuis in lamellas tenues separatorum ; inter quos copia adest vasorum annulatorum reticulatorumque sine ordine dispositorum.* Tubi lignei *parietes habent admodum crassas, diaphanas tamen, et glandulis fuscis uniseriatis notatas ;* vasa *multò tenuiora et grandiora.* Folia *ovata, acuminata, dentata.* Flores masculi *solitarii, axillares ;* pedunculo 1-2-*bracteato, petiolo paulò longiore.* Sepala *viridia, inæqualia, tria exteriora minima, interiora majora, concava, oblonga, ciliata.* Petala 3, *sepalis interioribus conformia, lutea, mox fulva.* Stamina *plurima, in globum carnosum coadunata, apicibus tantum antheriferis liberis ;* antheræ *ovatæ, biloculares, dorso affixæ, in foveis globi nidulantes.*

[*Fœminei* (ex cel. Wallich) quoad sepala masculis simillimi. *Ovaria* minima, valde numerosa, carnosa, ovata, suprà et intus marginulâ parum elevatâ notata, imbricata in acervulum subglobosum. *Stylus* nullus. *Baccæ* globosæ, carnosæ, numerosæ, læves, coccineæ; parum minores quam in antecedente, fabricâ vero internâ omnino similes, dispositæ in spicam brevè pedunculatam, sex pollicarem, cylindricam, rachi parum incrassatâ, valde asperâ propter tubercula numerosa baccas adfigentia.]

A hot-house climber, found by Dr. Wallich in Nipal, on Mount Sheopore, and on hills about Sankoo. It is easily

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* So named from σφαῖρα a globe, and στῆμα a stamen, in allusion to the structure of the male flowers.

propagated by cuttings, and in the fertile state must be a handsome plant, with its long pendulous spikes of scarlet berries. Unfortunately, the plant which flowered in the garden of the Horticultural Society last July, and from which our drawing was taken, was a male; so that we are not likely to see these berries until a fresh importation of plants shall have taken place.

In the structure of its flowers it is extremely curious. The stamens (*fig.* 2.) are all consolidated into a solid globular mass, the anthers only being at liberty, and nestling in a number of little excavations (*fig.* 1.) of the mass.

We find, by our memoranda, that Dr. Blume combines this genus, *Kadsura*, *Stauntonia*, and *Schizandra* into a small group, called *Schizandreæ.* We have not at hand the work in which Dr. Blume's ideas upon this subject are explained, but we presume, from the ternary structure of the flower of those genera, their aromatic foliage, apocarpous fruit, hypogynous stamens, and minute embryo lying in a great mass of albumen, that they constitute a section of *Anonaceæ;* distinguished by the climbing habit, unisexual flowers, homogeneous albumen, and, perhaps, also by their wood. Upon this latter point we however cannot judge, from want of means of examining the wood of *Schizandra* and *Kadsura;* that of *Sphærostema* is very like the remarkable wood of *Stauntonia* or *Hollböllia*, figured in our introduction to Botany, p. 70, as will be evident from the technical description given of it in this account.

1689.

S. Drake. del.   Pub by J. Ridgway. 169 Piccadilly July. 1. 1834.   J. Watts. sc.

* LUPÍNUS densiflórus.

Dense-flowered Lupin.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 86.)
LUPINUS. Supra, vol. 13, *fol.* 1096.

L. *densiflorus;* annuus, pilosus, caulibus adscendentibus basi foliosis; foliolis 7-9 oblongo-spathulatis, verticillis numerosis villosis approximatis 6-10-floris, pedicellis bracteatis, calycis labio superiore membranaceo bipartito inferiore piloso tridentato duplo longiore, leguminibus villosis dispermis.

L. densiflorus. *Bentham in Hort. Trans. n. s. vol.* 1, *p.* .

Annuus; caule *erecto, simplici, brevissimo, villoso, in spontaneâ pedunculo communi multo breviore.* Folia *pilosa;* foliolis *oblongo-spathulatis,* 7-9, *pallide viridibus, in spontaneâ pedunculo longioribus, culta brevioribus;* stipulæ *setaceæ, intertextim villosæ.* Verticilli *villosissimi,* 6-10-*flori, æquales, approximati; inferioribus magis distantibus.* Bracteæ *a lata basi setaceæ, carinæ longitudine, apice sphacelatæ.* Calyx *villosus, in cultu tantum pubescens; bracteolis setaceis labii superioris longitudine;* lab. sup. *bipartito, laciniis approximatis;* inferiore *apice tridentato dente intermedio minimo, superiore breviore.* (*Obs. partes in icone incuria pictoris falsè delineantur.*) Vexillum *lacteum, acutiusculum, basi viridi-punctatum;* alæ *et* carina *acuminatæ, roseæ, lineis intensioribus striatæ.* Semina *olivacea, lævia, nigro maculata.*

Raised in the garden of the Horticultural Society, from seeds sent from California, by Mr. Douglas. Mr. Bentham, in his paper in the Horticultural Transactions, to which we have so often referred, speaks of it thus:—

"The flowers, which grow in distinct whorls, are white, delicately stained with pink; they are also a little speckled at the base of the vexillum. The leaves are closely clustered together, are covered with fine soft hairs, and each has about nine narrow divisions. The stem does not grow above six or seven inches high."

It is a hardy annual, but not one of the most beautiful species. Seeds have been hitherto produced by it in such small quantities, that it still remains extremely rare.

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* See fol. 1198.

1690.

Miss Drake del. Pub by J. Ridgway 169 Piccadilly Aug 1. 1834 J. Watts sc.

* YÚCCA supérba.

Superb Adam's Needle.

HEXANDRIA *MONOGYNIA.*

Nat. ord. LILIACEÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 279.)

YUCCA.—Corolla hexapetalo-partita, campanulata, demum marcescens; laciniis æqualibus parum patentibus, ungue connatis. *Stamina* valida, brevia; filamentis basi corollæ insertis, superne tumidulis. *Antheræ* parvæ, suboblongæ v. subglobosæ. *Germ.* oblongum, teretiusculum, 6-sulcum, stamina excedens. *Stigmata* 3, sessilia, obesa, deorsum confluentia, apice parum recurvata. *Caps.* carnosa, oblonga, obtusè 3-6-gona, apice perforata et demum dehiscens, 3-6-locularis, dissepimentis 3 crassioribus. *Semina* numerosissima, uniserialia, plana. *Römer and Schultes Syst. veg. v.* 7, xli.

Y. *superba*; foliis loratim lanceolatis amplis 2-3 uncias latis subplicatis parum mucronatis, floribus confertissimis oblongo-campanulatis, inapertis apice assurgenter rostratim curvantibus, caudice decempedali. *Haworth Suppl. Succ. Pl. p.* 36.—*Römer and Schultes Syst. veg. vol.* 7, *p.* 720.

Y. gloriosa. *Bot. Rep. t.* 473.

We are indebted to the Honourable and Rev. William Herbert, for the specimen from which our drawing was made. Having no knowledge of the plant ourselves, we can only repeat the observations made by Mr. Haworth, when he first pointed out the species, with the addition of Mr. Herbert's remarks in the letter that accompanied the specimens.

"This conspicuous species," says Mr. Haworth, "has been taken, by the authors of the Botanical Magazine, for *Yucca aloifolia*; and, misled by relying too much on their decision, I have cited its beautiful figure in the Botanical Repository, for *Y. aloifolia.* But on more mature consideration, nothing can appear more distinct in the whole genus than those two plants. The leaves of the present species are entire, and smooth-margined, not serrulated, and three times broader than those of *aloifolia;* and they possess much weaker and less pungent points. Indeed, as a species, it is much nearer allied to *Y. gloriosa;* and, in fact, appears to differ from that species only in the shape of its corolla, and in its arborescent stem, which differences are, however, sufficient."—(*Suppl. Succ. p.* 36.)

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* *Yuca* is said to be the name of this genus among the natives of Saint Domingo.

Mr. Herbert tells us that he bought the Yucca, twenty years ago, from Mr. William Malcolm, of Kensington; and that it is unquestionably the most magnificent plant in the flower-garden. The flower-stem rises eight or nine feet high, and the profusion of blossom is so great, that as the lateral shoots are rather suberect than diverging, a pin cannot be passed between the flowers in the centre of the column. The deep crimson of the stalks and stem, and the purple stripe on the outer petals of the flower, remind one of the colour of *crinum amabile*, and contrast beautifully with the glossy white flowers. It is a very hardy species, and flowers frequently. In a very dry season the colour is not so deep; warm or temperate, and showery weather, bring it to the highest perfection of beauty. Its leaves are more acutely pointed than those of *Yucca gloriosa.*

Miss Drake del. Pub by J. Ridgway 169 Piccadilly Aug 1 1834. F. Watts sc.

* GÍLIA coronopifólia.

Ravenfooted Gilia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Polemoniaceæ. *Juss.* (*Introduction to the Natural System of Botany*, *p.* 219.)

GILIA. Supra, vol. 19, *fol.* 1622, *in textu.*

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§ 2. Ipomopsis. *Folia alterna, pinnatisecta v. pinnatifida. Flores axillares v. subglomerati. Corollæ tubus elongatus longè exsertus.* Bentham, supra, fol. 1622.

G. *coronopifolia ;* caulibus strictis paniculatis glanduloso-pubescentibus, foliis pectinatim pinnatis : laciniis filiformibus apice setaceis, corollis elongatis tubulosis limbi patuli laciniis oblongis acutis.

G, coronopifolia. *Pers. synops.* 1, 187.

Ipomopsis elegans. *Smith Exot. bot.* 1. 23. *t.* 13.

Ipomopsis picta. *Hort. Gallic.*

When we published the beautiful plant called *Ipomopsis elegans* at folio 1281 of this work, we thought it certain, firstly that the genus Ipomopsis was distinct from Gilia, and secondly that the old *Gilia coronopifolia* of the gardens was the same as that species. It however appears from the investigations of Mr. Bentham that we were in error in both these particulars ; for he sinks the genus Ipomopsis in Gilia, and separates the north-west American species from that of Carolina.

In regard to the latter point we are satisfied that we were in error, and we accordingly avail ourselves of the present opportunity of pointing out the differences between the two species.

Gilia coronopifolia, a Carolina plant, called in the French gardens *Ipomopsis picta*, has its stem covered over with fine glands mingled with a delicate downiness ; its leaves have

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* See fol. 1170.

extremely narrow divisions, which are tapered off to a fine point; and its corolla has the segments in no wise reflexed, but spreading flat, and oblong with a slight point.

G. pulchella (fol. 1281) on the contrary, a North-west American plant, has no glands on its stem; its leaves have narrow flat segments, which do not taper to the point; and its corolla has the segments almost triangular and reflexed.

By these botanical differences then they may be distinguished; in addition to which we may add, that *G. coronopifolia* is a plant which although delicate is tolerably easy to cultivate, and produces its seed in some abundance; while on the other hand *Gilia pulchella* is so impatient of cultivation that it is already nearly lost from our gardens.

Both species are little better than biennials, and succeed more perfectly in a cool airy green-house than in the open air; they are equally handsome, and as may be supposed, from their having been confounded with one another, very much alike.

Miss Drake. del.   Pub by J. Ridgway 169 Piccadilly Aug.t 1. 1834.   S. Watts. sc.

1692

* RÍBES níveum.

White-flowered Gooseberry.

PENTANDRIA *MONOGYNIA.*

Nat. ord. GROSSULACEÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 54.)

RIBES. Supra, vol. 2, *fol.* 125.

R. *niveum ;* ramis aculeatis, aculeis 1-3, foliis subrotundis obtuse trilobis crenato-incisis basi integerrimis glabris, pedunculis subbifloris, sepalis reflexis, staminibus longè exsertis conniventibus pilosis stylo longioribus.

Frutex R. Grossulariæ *facie et statura.* Aculei *sub ramulis solitarii gemini ternive pugioniformes, quibusdam præterea minoribus in internodia ; in ramulis vegetioribus densissimi, reflexi.* Folia *glabra, axillis venarum nonnunquam villosis, venisque ipsis membrana connexis.* Racemi 2-3-*flori, penduli, foliis multo breviores.* Calyx *viridis, laciniis albis, reflexis, paululum glandulosis ; petala erecta, conniventia, lacera.* Stamina *elongata, conniventia ;* filamentis *pilosis,* stylo *piloso longioribus.* Baccæ *nigræ, glabræ,* R. nigri *omnino facie et magnitudine ; sapore acido vinoso submoschato gustui gratissimo.*

An undescribed Gooseberry, brought to the Horticultural Society by Mr. Douglas, from North-west America. It is nearly allied to the common European Gooseberry, from which it is distinguished by its long conical stamens.

Ribes triflorum, an American species, to which this also approaches, is essentially distinguished by its much more slender habit, smaller dingy green flowers, and much smaller fruit.

The latter is about the size of that of a Black Currant, and of the same deep rich purple colour; it has altogether the appearance of a small smooth gooseberry, but its flavour is very different. It is entirely destitute of the flatness which is more or less perceptible in even the best gooseberries, in lieu of which it has a rich sub-acid vinous rather perfumed flavour, which is extremely agreeable. The fruit is rather too acid to be eaten raw, but when ripe it makes delicious tarts, and would probably form an excellent means of improving the common gooseberry by hybridizing.

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* See fol. 1263.

Miss Drake del.

Pub. by J. Ridgway 169 Piccadilly Aug 1 1834.

S. Watts sc.

* DIPLOPÁPPUS incánus.

Hoary Diplopappus.

SYNGENESIA *POLYGAMIA SUPERFLUA.*

Nat. ord. Compositæ. *Juss.* (*Introduction to the Natural System of Botany, p.* 197.)

DIPLOPAPPUS Cassini. Radius uniserialis fœmineus. *Discus* hermaphroditus. *Pappus* biserialis conformis. *Corolla* disci regularis. *Achænium* erostre.——Herbæ *v.* fruticuli *Americani, Asiatici,* v. *Africani,* foliis *alternis integris ;* capitulis *terminalibus, solitariis, colore vario tinctis* Lessing. Synops. gen. comp. p. 163.

D. *incanus ;* suffruticosus, foliis linearibus obtusis glauco-incanis semiamplexicaulibus, caulis corymbosi ramulis unifloris, involucri squarrosi foliolis lineari-lanceolatis glandulosis.

Herba *perennis, suffruticosa, incano-tomentosa, subbipedalis, corymboso-ramosa ; ramulis distanter foliatis monocephalis.* Folia *omnia linearia, incana, sessilia, apice mucronulata, patentia ; in ramulis floridis sensim evanescentia.* Involucra *hemisphærica, squarrosa, bracteis linearibus, acutis, subglandulosis, interioribus erectis, basi albidis apice herbaceis.* Radius *biseriatus, violaceus ; discus luteus.* Pappus *biseriatus, filiformis, pubescens ; serie exteriore abbreviata ;* ovario *tereti lanato.*

A handsome half-shrubby species, discovered in California by Mr. Douglas, by whom seeds were sent to the Garden of the Horticultural Society in 1832.

It is easily known from *D. linariifolius* and its allies by its hoary leaves, and soft flower-heads, which have the leaflets reflexed at the points in a squarrose manner, and covered with minute semi-transparent glands. Its flowers are of a rich lilac, with a bright yellow disk.

The species is rather tender, and should be protected during winter in a frame. In summer it grows freely in any hot, exposed situation, for which its Californian constitution particularly qualifies it.

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* So called in allusion to the double row of pappus of the genus.

1694.

Miss Drake del.

Pub by J. Ridgway 169 Piccadilly Aug. 1. 1834.

* PULTÉNÆA fléxilis.

Shining-leaved Pultenæa.

DECANDRIA *MONOGYNIA.*

Nat. ord. LEGUMINOSÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 87.)
PULTENÆA. Supra, vol. 5, *fol.* 378.

P. *flexilis ;* glaberrima, floribus axillaribus, foliis oblongo-linearibus mucronatis planis. *R. Brown in Hort. Kew. vol.* 3, *p.* 19.
P. flexilis. *Smith in Linn. Trans.* 9. 248. *De Candolle Prodr.* 2. 111.
Dillwynia teucrioides. *Sieber plant. exs. n. holl. No.* 423.

Rami *minutissimè pubescentes, subangulati.* Folia *obovato-oblonga, angusta, mucronulata, plana, viridia, nitida, glaberrima ;* stipulis *setaceis, fuscis, petiolo paulò longioribus.* Flores *solitarii, axillares, brevipedunculati.* Calyx *glaberrimus, bibracteatus, 5-dentatus ; dentibus brevibus subæqualibus.*

We are indebted to Mr. Cunningham for the knowledge of this being the true *P. flexilis* of Smith and the Hortus Kewensis, with which an entirely different plant, with glaucous leaves and hairy calyxes, has been confounded by Mr. Sweet.

Mr. Cunningham concludes it must also be *P. flexilis* of Mr. De Candolle, because that Botanist quotes as a synonym, *Dillwynia teucrioides* of Sieber, the identity of which with the present plant is proved by the comparison of authentic specimens. The statement made by Mr. De Candolle, that his plant has no bracts, may possibly be accounted for upon the supposition that the specimens he described were imperfect.

Mr. Cunningham further adds that the species is "closely allied to *P. polygalifolia* of Rudge, but the calyx of that species is interspersed with villous hairs ; its leaves are smaller ; and it is altogether a more abundant flowering plant. *P. euchila D. C.* has also smaller cuneated leaves, and a remarkable ample calyx, like, as De Candolle observes, *Euchilus* of R. Br. and especially, to my view, like that of some *Gompholobia*.—I have now before me an authentic bit of Sieber's *Dillwynia cuneata*."

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* See fol. 1584.

"*P. flexilis Sm.* and Br. is a native of the country around Port Jackson, where it flowers in the spring (Sept.); and according to Hortus Kewensis, has been an occasional inhabitant of the English gardens for upwards of thirty years."

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* DENDRÓBIUM aggregátum.

Clustered Dendrobium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. §. Malaxideæ *Lindl.* (*Introduction to the Natural System of Botany, p.* 262.)

DENDROBIUM. Supra, vol. 7, *fol.* 548.

D. *aggregatum ;* pseudobulbis monophyllis fusiformibus cinereis corrugatis, folio oblongo coriaceo obtuso racemo laterali cernuo multifloro duplò breviore, petalis ovatis sepalis duplò latioribus, labello integerrimo latiore quam longo medio transversè plicato basi pubescente.

D. aggregatum *Roxb. Fl. Ind.* 3. 477. *Lindl. in Wallich. cat.* 7411.

Pseudobulbi *fusiformes, cæspitosi, 2-pollicares, squamis cinereis pellucidis vestiti.* Folia *3-pollicaria, obscurè 5-striata.* Racemi *e latere pseudobulbi provenientes,* 9 *pollices et ultra longi, laxi, cernui, v. nutantes,* 10-15-*flori.* Bracteæ *minimæ, ovatæ, purpurascentes.* Flores *pallidi, subcrocei, pedicellis gracilibus flexuosis inserti.* Sepala *explanata, angustè ovata, anterioribus valde obliquis in pseudocalcar obtusum conniventibus, more generis.* Petala *ovata, sepalis duplò latiora.* Labellum *versus basin intensius croceum, tali modo dilatatum et plicatum ut marginibus suis posterioribus petalorum dimidiam inferiorem imbricat ; cum columna articulatum.* Columna *parva, albida, basi processu carnoso squamiformi deflexo aucta ; clinandrio obtusè tridentato.*

Received, according to Dr. Roxburgh, into the Botanic Garden, Calcutta, from Mr. Pierard, who found it growing on the trunk of *Lagerstrœmia Reginæ*, on the northern border of Arracan, and observed it in the woods exclusively on that tree ; it was, however, found to thrive on the Mango tree in the Botanic Garden. It is also a native of the banks of the Chappadong river in the Gulf of Martaban, whence it was brought some years since by Dr. Wallich. It belongs to a curious section of the genus, all the species of which have their stems shortened into the pseudobulbous form of Bolbophyllum, and thus form a natural transition to that genus.

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* See fol. 1239.

It appears to require as much heat and moisture as any of the Indian species, a circumstance which is explained by its inhabiting, when wild, the damp and sultry woods of Martaban. We believe it was originally distributed by the Horticultural Society; but it has hitherto flowered only in the collections of Mr. Harrison and Mr. Bateman, from both of whom we have received specimens. It blossoms in March and April.

The lip of this species is remarkable for being much broader than long, and plaited in the middle in such a manner as to form a projection round the hollowed part which lies against the column; it is moreover more distinctly articulated with the column than is usual in the genus. Its column has a fleshy reflexed appendix near its base.

In the accompanying figure 1 represents the lip, viewed from above: and 2 a section of the column and part of the lip, for the purpose of shewing at *a* the bed of the anther, at *b* the scale near the base of the column, at *c* the hairiness of the cavity of the lip, and at *d* the point of articulation between the lip and the column.

Miss Drake del.   Pub by J. Ridgway, 169 Piccadilly [illegible]

1696

* PHACÉLIA tanacétifólia.

Tansy-leaved Phacelia.

PENTANDRIA *DIGYNIA.*

Nat. ord. Hydrophylleæ. *R. Br.* (*Introduction to the Natural System of Botany, p.* 244.)

PHACELIA. Juss. Corolla decidua. *Ovarium* ovoideo-globosum, piloso-hispidum. *Placentæ* lineares, sæpius dorso parietibus ovarii adnatæ, biovulatæ. *Capsula* dissepimentis subcompletis pseudobilocularis.—Herbæ *annuæ v. perennes, erectæ v. diffusæ.* Flores *racemosi, densi, sessiles, v. laxi pedunculati,* cymis *unilateralibus simplicibus v. dichotomis.* Bentham MSS.

P. *tanacetifolia ;* scabro-pubescens v. hispida ; foliis bipinnatifidis : segmentis oblongis dentato-pinnatifidis, calycis laciniis oblongo-linearibus hispidis, staminibus exsertis. *Bentham MSS.*

P. tanacetifolia. *Bentham in Hort. Trans. n. s. vol.* 1. *p.* 479.

Annua. Caulis *suberectus, debilis, ramosus, fragilis, subangulatus, pilis rigidis inæqualibus laxè exasperatus.* Folia *pilis brevissimis aspera, fragilia, subsucculenta, pinnata ; laciniis pinnatifidis lobis ovatis obtusiusculis grossè serratis.* Racemi *compositi, more ordinis circinati, hirsutissimi.* Calyx *ebracteatus, 5-phyllus ;* sepalis *linearibus, corollæ subæqualibus,* 4 *omninò æqualibus, quinto paululùm majore et sub æstivatione a reliquis remoto.* Corolla *tubo brevi obconico ; limbo æquali, 5-lobo ; laciniis oblongis subundulatis patulis, æstivatione imbricatis.* Stamina 5, *basi corollæ inserta, filamentis subulatis exsertis ;* antheræ *oblongæ, flavescentes, subversatiles.* Squamæ *tubi* 10, *membranaceæ, lunatæ, per paria inter bases filamentorum approximatæ, verosimiliter pro antheris sterilibus à dorso tubo corollæ adnatis, lobis liberis membranaceis, habendæ.* Ovarium *parvum, ovatum, apice crinitum, uniloculare, placentis* 2, *erectis, subulatis, linearibus, liberis,* (*quasi parietalibus solutis*), *apice et basi ovario adhærentibus.* Ovula *cuique placentæ* 2, *appensa, v. potius peltata, quorum* 3 *sæpius abortiunt, uno tantum vivificato.* Capsula *loculicido-bivalvis, oblonga, calyce inclusa, monosperma.* Semen *oblongum, compressum, scrobiculatum, per lineam totam fere faciem occupantem placentæ adnatum ;* embryone *in axi albuminis carnosi,* radicula *tereti, superá,* cotyledonibus *oblongis planis longiore.*

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* From φακελος, a bundle, in allusion to the flowers being collected in close parcels.

We have extracted the generic and specific characters of this plant from an important memoir by Mr. Bentham, upon the Natural order Hydrophylleæ, which was read before the Linnean Society on the 17th of June last; it comprehends no less than 17 new species, and one new genus of this small groupe.

Upon this plant Mr. Bentham has the following observations:—

" This is a more elegant and less weedy plant than the *P. circinata* now common in gardens. It grows to the height of a foot and a half or two feet. The stems are erect, not much branched, bearing a few rigid and reflexed hairs. The leaves are altogether from 3 to 5 inches long; the primary segments, especially the lower ones, are slightly petiolated, from 8 to 12 in number on each leaf, and from half an inch to an inch distant. The secondary segments are from a quarter to half an inch long; those nearest the axis, sessile and distinct, the upper ones confluent; they are green on both sides, nearly glabrous, but covered with asperities. The flowers are of a light bluish violet colour, nearly sessile along one sided spirally incurved racemes, forming together a dense dichotomous panicle placed at some distance from the upper leaves; the calyxes are covered with bristly hairs.

" It is a hardy annual, thriving in any soil or situation."

A native of California, where its seeds were gathered by Mr. Douglas.

Fig. 1. is a view of the ovarium, with the two-parted hairy style; fig. 2. represents the corolla cut open, shewing the ten scales near its base. We would take the present opportunity of suggesting that these 10 scales represent five sterile anthers adhering to the tube of the corolla by their backs, and consisting each of two membranous lobes. This is chiefly rendered probable by their number and position; but we are not acquainted with any direct evidence of such being the true nature of these singular appendages.

Pub by J. Ridgway 169 Piccadilly Aug. 1. 1834.

* STÁCHYS infláta.

Bladdery Stachys.

DIDYNAMIA *GYMNOSPERMIA.*

Nat. ord. Labiatæ. *Juss.* (*Introduction to the Natural System of Botany, p.* 239.)

STACHYS. Supra, vol. 15, *fol.* 1289.

§. VIII. Ambleia. *Suffrutices, fruticesve, tomentosi, rariùs glabrati, nec pilosi. Verticillastri* 2-6 *rariùs sub* 10-*flori. Bracteæ parvæ v. paucæ. Calyces tomentosi v. lanati dentibus mollibus muticis.* Bentham Labiat. gen. et sp. p. 558.

S. *inflata;* suffruticosa, ramis albo-tomentosis, foliis subsessilibus oblongis obtusis integerrimis subrugósis subtus albo-tomentosis, verticillastris subsexfloris distantibus, bracteis linearibus brevibus, calycis sessilis inflato-campanulati albo-tomentosi dentibus ovatis obtusiusculis muticis, corollis calyce dimidio longioribus. *Bentham l. c. p.* 562.

Caulis *suffruticosus, incanus, lanatus, subteres.* Folia *ovata brevipetiolata, integerrima, rugosa, supra cinerea, infra albolanata; superiora minora, subsessilia.* Spica *elongata, nudiuscula; verticillastris distantibus subsexfloris: foliis duobus parvis floralibus suffultis.* Calyces *cinerei, tomentosi, campanulati, inflati,* bracteolis *parvis subulatis;* dentibus *brevibus mollibus, erectis.* Corolla *pallide violacea, transparens;* labio superiore *lineari, subemarginato, apice inflexo,* inferiore *dilatato, undulato, trilobo;* fauce *pubescente;* tubo *annulo pilorum in medio.* Staminum *filamenta pilosiuscula, inferiorum post anthesin ad latera corollæ reflexa.*

This plant was raised in the garden of the Horticultural Society; but the label having been accidentally lost, it is uncertain of what country it is a native. Mr. Bentham conjectures that it has come from the North of Africa, which is rendered the more probable by its having been growing near some plants obtained from Egyptian seeds presented to the Society by Mr. Greenough.

It is apparently hardy; but in consequence of the mildness of the last two winters it is not safe to speak confidently upon that point. All that we certainly know about it is that it grows freely in common garden soil, in the open air, and that it is easily propagated by cuttings.

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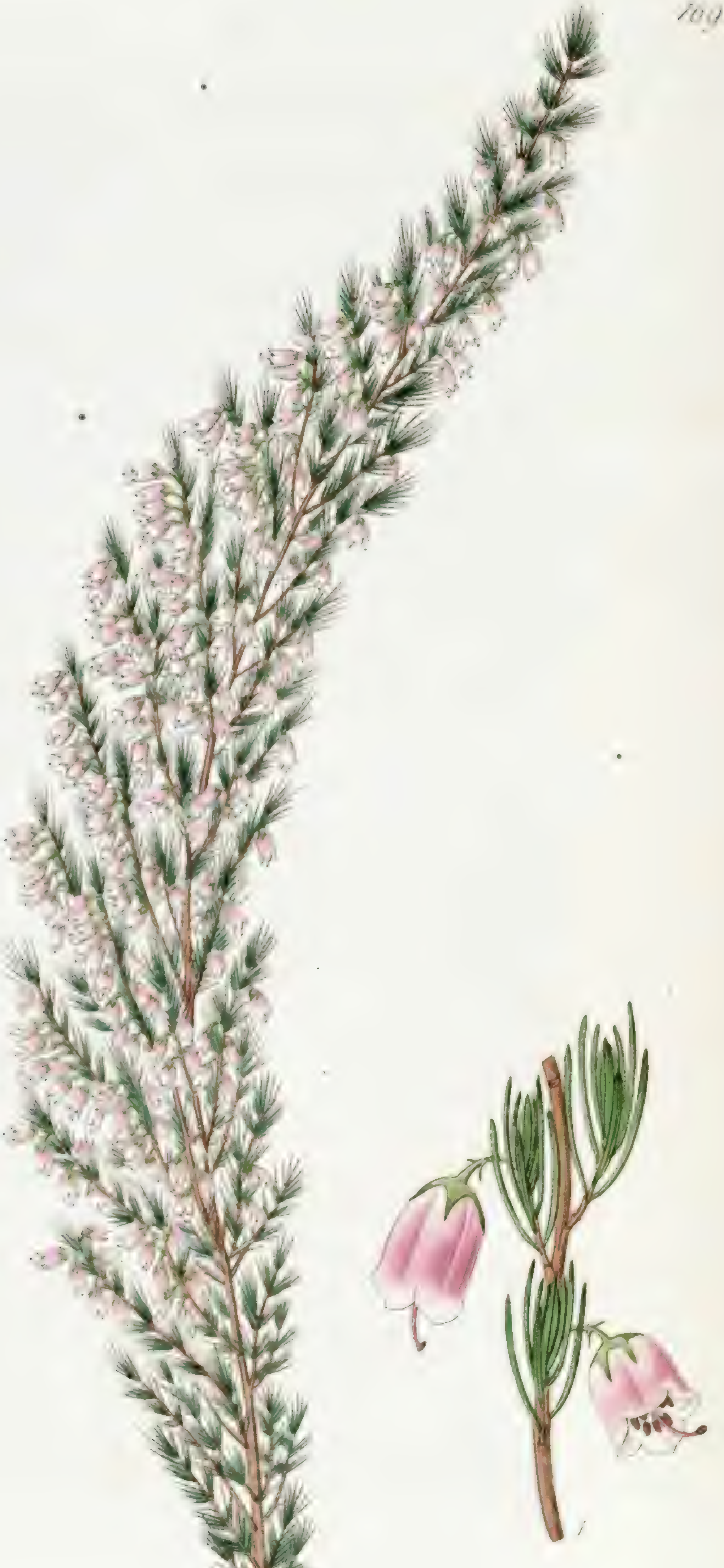
* See fol. 1226.

It belongs to a section of the genus very different from the wild Stachyses of our hedges, and distinctly characterised by the small wrinkled downy hoary leaves and the soft teeth of the calyx.

Although not a very handsome plant, yet its thin half-transparent light violet flowers, and neat hoary leaves give it a pleasing appearance.

In the accompanying plate, fig. 1. represents the corolla cut open, to shew the place of the filaments and of a ring of hairs; 2. a magnified anther with the upper part of the filament; and 3. is the ovary with the style and stigma.

1693.



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* ERÍCA codonódes.

Bell-bearing Heath.

OCTANDRIA *MONOGYNIA.*

Nat. ord. Ericeæ. *Juss. (Introduction to the Natural System of Botany, p.* 182.)
ERICA. Supra, vol. 1, *fol.* 6.

E. *codonodes;* ramulis villosis, foliis ternis angustissimis, corollis campanulatis, calycis laciniis minimis acutis subherbaceis, antheris basi aristatis inclusis, stylo exserto stigmate simplici.

E. arboreæ *facie, diversa tamen foliis angustioribus, corollis majoribus et omnino campanulatis nec subglobosis, demum stigmate parum dilatato integro nec peltato lobato.* E. polytrichifolia *alienæ esse speciei videtur ob corollas multo minores, stylos longiores, et stigmata magna infundibularia siccatione plicata. An* E. arboreæ *mera varietas?*

This species of heath has the general appearance of *E. arborea*, a plant which is a great ornament to rocky places in the South of Europe, where it grows intermixed with different kinds of Cistus and the wild Arbutus. But it seems essentially distinct in its larger flowers, more slender leaves, less hoary branches, and truly bell-shaped corolla, which has by no means the globular form of that of *E. arborea*; its stigma is moreover very small, and not at all dilated or lobed, either when dried or recent. *E. polytrichifolia*, which we presume is the *E. arborea stylosa* of English gardens, is equally distinct in the same characters.

Our drawing was made from specimens communicated to us by Mr. Wm. Wood, Nurseryman of Maresfield, in Sussex, who informs us that the species is quite hardy, and forms a bush from 10 to 12 feet high. It begins to blossom in February, and continues till the end of May, disregarding both frost and snow, being often covered with flowers from top to bottom, and forming a most beautiful object.

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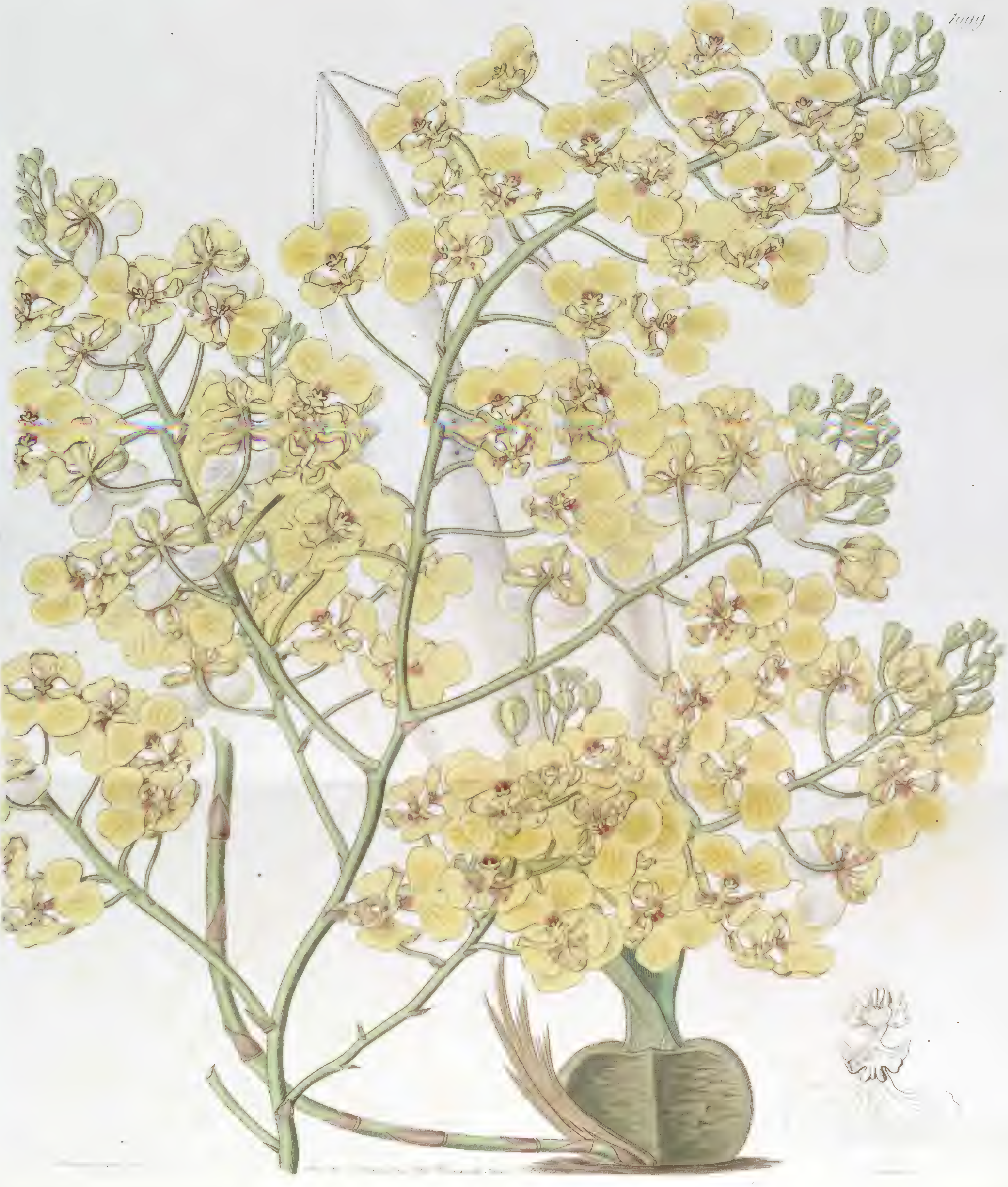
* So named from ερεικω to break, in allusion to its supposed lithontriptic powers; its name may also refer to the unusual brittleness of the branches.

It thrives in light sandy peat, and is increased, but with difficulty, either by cuttings struck in sand under a bell glass, or by layers bent down in July.

1099



* ONCÍDIUM ampliátum.

Broad-lipped Oncidium.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchideæ. *Juss.* (*Introduction to the Natural System of Botany, p.* 262.)

ONCIDIUM. Supra, vol. 13. *fol.* 1050.

O. *ampliatum ;* sepalis omnibus liberis, labello bilobo subrotundo transverso: laciniis lateralibus brevissimis, callo baseos 5-lobo: lobis lateralibus patentissimis planis truncatis intermediis teretibus centrali compresso, alis columnæ cuneatis dentatis reflexis, pseudo-bulbis subrotundis compressis, foliis planis oblongo-lanceolatis, scapo erecto apice ramoso.

O. ampliatum. *Lindl. in Hook. Bot. misc. v.* 3. *p. Gen. et sp. orch. part* 3. *p.* 202.

Folia *et* pseudobulbi *facie omnino* O. papilionis. Scapus *ascendens, radicalis,* 1½-2-*pedalis, apice ramosus.* Flores *lutei, labelli dorso albo.*

First found in central America by Mr. Cuming, and afterwards procured in a living state by Richard Harrison, Esq. from whom the beautiful specimen now figured was received in March last.

Peculiar as are its flowers, and distinct as the species is in most respects, it is curious that its leaves and pseudo-bulbs should be so like those of *O. Papilio,* that we have known the latter to be mistaken for it.

Like all the rest of its genus, it requires the hot damp atmosphere of a stove, in which, if we may judge by Mr. Harrison's specimens, it finds itself perfectly at home. We have not yet heard of it in any other collection.

It is well known that the most considerable part of the Epiphytal Orchideæ is found in the greatest vigour in damp sultry woods of tropical countries; and accordingly we endeavour in our artificial cultivation, to form an atmosphere for them as nearly as possible that which they would naturally breathe in such stations. That this is attended with very great success is obvious from such plants as the one now figured, and from the numerous splendid specimens which are from time to time appearing in the collections of Earl Fitzwilliam, Lord Grey of Groby, the Messrs. Harrison, Bateman, Huntley, Loddiges, and Knight, and the Horticultural Society.

But it is sufficiently evident that although this kind of treatment is admirably suited to a considerable number, there are others which grow most unwillingly, or scarcely survive, under such circumstances. For instance, *Dendrobium speciosum* languishes in situations where the *Stanhopeas* are in their greatest splendour; and the Chinese *Bletias* almost perish by the side of *Eulophia* and *Zygopetalum.* This arises from the great difference in their respective constitutions, which are each adapted to distinct conditions of life, and our failure arises from our mistaking a general principle for an universal law. If a great majority of Epiphytal Orchideæ swarms in damp tropical forests, there is a considerable minority which lives in an entirely different climate, of which a few examples will not be without instruction. Thus in the genus Oncidium itself, where almost all the species are of tropical habits, *O. nubigenum* is only found on the cool mountains of Peru, at the height of 14,000 feet; it will therefore require a treatment altogether distinct from that of the mass of the genus. *Dendrobium moniliforme* and *catenatum*, again, occur only in Japan, as far north as 37° or 38°, or the parallel of Lisbon, and are periodically subject to a very low temperature.

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* See fol. 1542.

But the most remarkable instances of a disposition on the part of some Orchideous Epiphytes to depart from the ordinary habits of the tribe are found in Australia and its dependency New Zealand. In some extremely valuable observations upon the geographical distribution of the Orchideous plants of New Holland, which have been placed in our hands by Mr. Allan Cunningham, we find a passage which bears so directly upon this subject, that we cannot do better than quote it entire.

"There are two, if not three plants of this family," says this enterprising and scientific traveller, "that grow on trees or rocks in New South Wales, whose natural constitution should, in cultivating them, form exceptions to the uniformly adopted mode of treatment of Epiphytes generally in our English stoves; namely, that in which high temperature and considerable humidity are employed. These are *Dend. æmulum*, *Br.*, an Epiphyte uniformly found upon the rugged trunk of Eucalyptus resinifera or Ironbark, in the open very dry forest grounds of the older colony at Port Jackson;—*Cymbidium canaliculatum*, *Br.*, which of late years has been observed beyond the Tropic, both at Moreton Bay and still farther to the southward at Hunter's River, growing upon the principal limbs of several of the Eucalypti in the dry open shadeless forest. These two Epiphytes flourish most luxuriantly in an extremely dry atmosphere, and flower usually in the summer season in their native wilds, the high temperature of which is oftentimes greatly increased by the blighting hot winds, which not unfrequently prevail at that period from the north-west. The third is *Dendrobium undulatum* of Mr. Brown, a handsome species, originally discovered by Sir Joseph Banks at Bustard Bay, and which has been lately found on barren hills, naturally clear of timber, upon the banks of the Brisbane River at Moreton Bay, where the plant forms tufts on bare rocks exposed to the full heat of the sun, which during nine months of the year is very considerable on that part of the coast. These species were some years since received alive at Kew, from New South Wales; and with them was communicated, as a guide to their culture, a note of the particular situations, with regard to exposure to drought, &c. which they naturally occupy and delight in, in their native wilds. These particulars were, however, in all probability wholly unheeded in the King's Gardens—the plants were associated with other Epiphytes of this vast and variable family, from Equinoctial America and the West India Islands, desiring a humid air with warmth to luxuriate in, amongst whom the Australians soon shewed sickness, in consequence of the excess of moisture to which they were constantly subjected; and eventually dying, were not only lost to Kew, but I may add to Europe! Had they been placed in the dry stove among Cacti, Stapeliæ, &c. with but an occasional light sprinkle of water afforded them, they would have fared better! D. æmulum was, I find, notwithstanding, induced to flower, and thus shewed by its delicate blossoms that it was well worthy of better treatment: and might afterwards have been retained, had the notes communicated with the plant from the Colony, and its *look* and constitution, so to speak, been at all consulted. I would just observe, in this place, that it is to be greatly regretted, that collectors of these beautiful vegetables in foreign countries, are not more careful to note and communicate home with the collections they form, the particular localities of the species, which would be of great use to the experienced cultivator; inasmuch as it would enable him to treat them in a way, as nearly accordant with their habits in their respective native countries, as would secure their lives in the Garden, and probably induce them to flower when fully established in their new situations."

To these instances of Orchideous Epiphytes may be added two others, which are worthy of still more attention than those just cited. One is the beautiful little *Gunnia australis*, which has much the aspect of *Chiloschista usneoides* found in the jungle of Nipal; it grows on the branches of shrubs in Emu Bay, in Van Diemen's Land, in about 41° S. Lat. and 146° E. Long. *Earina mucronata* is the other example. This plant, although occurring as far to the Northward as 35° S. Lat. in humid forests at the Bay of Islands, in New Zealand, exists also in abundance in the "very (permanently) damp woods which clothe the shores of Dusky Bay, (Lat. 45° 45′ S.) on the western side of the Larger or Middle Island of New Zealand," where it was originally observed by Forster, in Cook's Second Voyage, and where it has been since met with by Mr. Cunningham, whose words we have quoted.

Considering the lower rate of temperature which prevails in the Southern hemisphere, as compared with that of the Northern in corresponding latitudes, the station of *Earina* in New Zealand is not naturally different from the damper parts of the south-west coast of Ireland.

These remarks will we trust suffice to cause a greater degree of attention to be paid to the differences of constitution of particular species of Orchideous Epiphytes; for although we have only cited extreme cases, we may be assured that minor peculiarities, which it is not less important to study, exist in abundance.

One of the plants just mentioned being imperfectly known to Botanists, and the other not at all, we subjoin the following brief account of them for the use of our systematic friends.

Gunnia.—Perianthium ringens. Sepala herbacea, lateralia postica, subfalçata, erecta, ungui labelli lineari longe producto adnata. Petala herbacea, sublanceolata, obtusa, ab ungue columnæ omninò libera, cum sepalo altero distincto pendulo parallela. Labellum carnosum, ungue longè producto lineari erecto, cum basi columnæ continuum, bilobum, anticè cornutum, mucrone inflexo, disco tuberculatum. Columna nana, semiteres, aptera. Pollinia 4, in paribus globosis coadunata; retinaculo lineari. Rostellum bifidum.———Herba epiphyta; radicibus longis tortuosis supra fruticum ramos repentibus. Folia lanceolata, falcata, disticha, basi, articulata. Racemus simplex, strictus, foliorum longitudine.

Sp. 1. Gunnia australis.

Hab. in *Insula Van Diemen*, in sinu Emu, *Backhouse*. (*hab. s. sp. comm. cel. Gunn.*)

Tota planta vix 2 pollices excedens. Sepala et petala luteo-viridia. Labellum verosimiliter album, v. leviter rubescens, lobis lateralibus oblongis obtusis; tuberculis 4, luteis, quorum 2 exteriores majores.

We have named this most curious plant after our liberal correspondent, Ronald L. Gunn, Esq. who is now examining the vegetation of Van Diemen's Land, with equal skill and assiduity. The genus is nearly related to *Chiloschista*.

Earina. (εαρινος.)—Sepala erecta, æqualia, acuta, membranacea, carinata. Petala carnosa, obtusata. Labellum carnosum, posticum, cucullatum, trilobum, disco nudo, cum columna continuum et subparallelum. Columna teres, nana, stigmatis obliqui labio inferiore prominulo. Clinandrium proclive. Anthera bilocularis. Pollinia 4, per paria cohærentia, collateralia.——Herba caulescens, rhizomate articulato, repente. Folia linearia, disticha, vaginantia. Flores parvi, paniculati, bracteis cartilagineis, striatis, cucullatis.

Sp. 1. Earina mucronata.

Epidendrum autumnale. *Forst. prodr. n.* 319.

Cymbidium autumnale. *Swartz. nov. act. ups.* 6. 72. *Willd. sp. pl.* 3. 98.

Hab. in *Nova Zelandia*. (*hab. s. sp. comm. cel. Cunningham.*)

Rhizomata inter muscos mortuos repentia, articulata. Caules ascendentes, palmares, pedalesque, pennæ corvinæ crassitudine, maculati, basi vestigiis laceris vaginarum vestiti. Folia lineari-ensiformia, apice leviter obliqua, mucronulata. Flores e bracteis rigidis cucullatis mucronatis erumpentes, parvi, ovario recto costato bracteolarum longitudine. Sepala omnia libera, angusta, mucronata, carinulata. Petala latiora, carnosa, obtusiora, æquilonga. Labellum posticum, carnosum, cucullatum, inappendiculatum, basi liberum, cum columna continuum et parallelum, trilobum, nudum; lobo intermedio bipartito laciniis oblongis crenulatis mucrone intermedio. Columna suberecta, nana, antica, teres, clinandrio subcucullato membranaceo-marginato; stigmate excavato, rostello obtuso. Anthera ovata, 2-locularis. Pollinia 4, per paria cohærentia, cereacea, collateralia, materie viscidâ rostello adhærentia.

For fine specimens of this we are indebted to Mr. Cunningham, who observed it "growing commonly in moist woods upon the shores of the Bay of Islands, New Zealand, on mossy rocky banks, and on the limbs of trees, flowering in September and October, which in New Zealand is the season of spring." From the latter circumstance we have contrived the generic name.

This genus belongs to Malaxideæ, and is related to *Cœlogyne* and *Dilochia*, of the latter of which in particular it has much the habit, only on a smaller scale. From the former its wingless column, and from the latter the number of its pollen masses, sufficiently distinguish it, independently of other points of difference.

1700

[illegible]

* AZÁLEA Índica; *lateritia.*

The Brick-red Chinese Azalea.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Ericeæ. *Juss.* (*Introduction to the Natural System of Botany,* p. 182.)

AZALEA. Supra, vol. 2, *fol.* 120.

A. *indica;* corollis tubuloso-campanulatis, foliis spatulato-oblongis obtusis v. lanceolatis costâ rufo-hispidâ, calycibus minimis hispidissimis.

A. indica. *Linn. sp. pl.* 214.

Var. *lateritia;* floribus pentandris lætè lateritiis, foliis spatulatis obtusis.

A beautiful new Chinese variety, our drawing of which we made in Mr. Knight's Nursery in May last. It had been introduced by Mr. M'Killigan, along with the lovely variegated kind, and with it was purchased by Mr. Knight.

The plant is remarkably bushy. Its foliage is a rich deep green, to which a slight rusty tinge is given by the numerous brown hairs of the mid-rib and margin; the leaves are narrow, very blunt, and remarkably covered with hairs, which give their surface a rough appearance; the flowers are of a bright clear brick-colour, a little tinged with rose.

It will no doubt require the same treatment as the other Chinese Azaleas; and will probably form as striking a variety as any of them, on account of the peculiarly bright colour of the flowers.

The habit of the plant is entirely that of the variegated kind, and we understand that it is the opinion of Mr. Reeves that it is a mere sport from that variety. It is however very different in the colour of the flowers, as will be seen when our figure of the latter makes its appearance.

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* See fol. 1366.

[illegible]

1701

* ÓRCHIS foliósa.

Leafy-spiked Orchis.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 262.)

ORCHIS. Supra, vol. 3, *fol.* 202.

§ 1. MASCULÆ. *Sepalis lateralibus reflexis v. patentibus.* Lindl. gen. et sp. orch. pars. 4. ined.

O. *foliosa ;* foliis oblongo-lanceolatis acuminatis laxè vaginantibus, spicâ oblongâ multiflorâ, sepalis ovatis acutis, labello latiore quam longo obsolete trilobo plano : laciniis lateralibus emarginatis intermediâ acutâ multò majoribus, calcare pendulo cornuto labello duplo breviore, bracteis herbaceis acuminatis flore sæpè longioribus, tuberculis palmatis.

O. foliosa. *Soland. MSS. Lowe Primit. Fl. Mader. p.* 13.

Omnino *O. latifoliam* refert ; sed omnibus partibus major est, labello plano manifeste trilobo nec rhomboideo, calcare breviore graciliore, caule elatiore.

A fine species of Orchis, native of woods and copses in Madeira; very much like the European *O. latifolia,* from which it differs in being larger in all its parts, having a distinctly three-lobed flat lip, instead of a lozenge-shaped convex one, a shorter and more slender spur, and a taller stem.

We were favoured with our specimens by Messrs. Young and Penny of Milford, near Godalming, in whose collection, so rich in Canary plants, it has for some time been cultivated. It succeeds, we are informed, extremely well, either in well-drained pots, or a turf pit, in a soil composed of the turfy portions of heath mould, with a mixture of moss and sand.

Like many others, this species varies with spotted and spotless leaves. In this country it flowers in May.

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* See fol. 1155.

The genus Orchis is usually divided into sections, characterized by the nature of the tubercles of the roots, a distinction which obviously is inconvenient, and which is also incompatible with a natural distribution of the species. A better character may be obtained from the calyx, which in some converges into a sort of casque or helmet (§. MILITARES), and in others is spread open or reflexed (§. MASCULÆ.) The sections of Orchis thus obtained are so extremely distinct that it may be doubted whether, upon the principles on which other genera are constituted, they should not be considered each a genus. But so much inconvenience would attend an alteration in the names of a great many common species, that less disadvantage will perhaps arise from retaining the *militares* as a mere form of Orchis; although the inconvenience might be diminished by the creation of such a name as *Herorchis.*

As some time must elapse before the appearance of the fourth part of the genera and species of Orchideæ, it may be interesting to Botanists to know in what way we propose to distribute the genera of Ophrydeæ. We therefore avail ourselves of the present opportunity to explain our present views upon the subject. The following list will shew, firstly, what the general arrangement of the tribe will be, and secondly, what new genera we propose to establish.

* *Antheræ loculi contigui paralleli, basi nullo modo elongati v. divaricati.*

1. Orchis.—2. Anacamptis.—3. Nigritella.—4. Glossaspis.—5. Gymnadenia.—6. Scopularia *nob.*—7. Aceras, as limited by Dr. Brown.—8. Serapias.—9. Ophrys.

** *Antheræ loculi sejuncti, basi divergentes, sæpè elongati.*

10. Monotris *nob.*—11. Holothrix.—12. Bartholina.—13. Disa.—14. Repandra *nob.* (=Disa cornuta, &c.)—15. Corycium.—16. Dryopeia.—17. Disperis.—18. Pterygodium.—19. Satyrium.—20. Bonatea.—21. Habenaria.—22. Diplomeris Don (=Diplochilus *Lindl.*)—23. Bilabrella *nob.*—24. Cynorchis.—25. Tryphia *nob.* (=Orchis secunda Thunb.)—26. Bicornella *nob.*—27. Cœloglossum *nob.*—28. Peristylus *Blume* (the calcarate Herminia.)—29. Herminium (as limited by Dr. Brown.)—30. Aopla *nob.*—31. Platanthera, (=Mecosa *Blume*, and including most of the North American Habenarias.)—32. Perularia *nob.* (=O. fuscescens *L.*)

The following are the essential characters of the new genera in the foregoing list :

6. Scopularia.—Calyx membranaceus, connivens, sepalis lateralibus minoribus. Petala membranacea, lacero-multifida, circa labellum convoluta. Labellum erectum, convolutum, membranaceum calcaratum apice lacero-multifidum. Anthera libera, erecta ; loculis approximatis, parallelis, basi dilatatis ascendentibus cucullum magnum inæquilateralem glandulas tegentem formantibus. Glandulæ polliniorum sub basi dilatatâ loculorum antheræ absconditæ, cucullo nullo (quantum videre potui) inclusæ.—Radices testiculatæ. Folia radicalia membranacea. Caulis aphyllus. Spica elongata subsecunda.—Sp. 1. *S. Burchellii.* C. B. S.

10. Monotris.—Sepala membranacea, postice connata, lateralibus anticè distinctis, labello petalisque duplo minora. Petala carnosa, acuminata. Labellum liberum, apice carnosum, trifidum, cucullatum, basi cornutum. Anthera libera, erecta, loculis basi divergentibus : valvulis exterioribus dilatatis, incurvis, glandulam tegentibus.—Radices testiculatæ. Folium minimum radicale. Caulis retrorsum hispidus. Flores parvi secundi. Bracteæ et sepalorum margines hispida.—Sp. 1. *Monotris secunda.* C. B. S.

23. Bilabrella.—Sepala patentia, carnosa, petalis multò minora; supremum 3 partitum. Petala membranacea, reflexa, maxima. Labellum carnosum, 3-partitum, calcaratum. Anthera loculis basi elongatis, solutis, divergentibus, distantibus, ascendentibus, glandulis nudis. Rostellum lineari-lanceolatum, recurvum, antheræ longitudine, Processus carnosi magni ascendentes.——Radices . . . . Caulis foliosus. Folia angusta membranacea. Racemus elongatus Habenariæ facie.—Sp. 1. *B. falcicornis.* C. B. S.

26. Bicornella.—Sepala inæqualia ; lateralia majora, labello extus obliquè adnata. Petala sepalo supremo in galeam convexam agglutinata. Labellum calcaratum, indivisum, angustum, canaliculatum, columnæ nanæ adnatum. Anthera ferè horizontalis, lobis ascendentibus, basi elongatis, lobis lateralibus rostelli adnatis, extus appendice linguæformi (stamine sterili) auctis. Rostelli lobus medius ovatus, planus, abbreviatus. Pollinia minima ; retinaculo longo lineari basi antheræ elongatâ tecto. — Herbæ (Mascarenenses) caule folioso v. subfolioso. Flores parvi, spicati.

27. —Cœloglossum.—Sepala conniventia, æqualia, libera. Petala conformia, ungui labelli adnata. Labellum carnosum, unguiculatum, calcaratum, tripartitum, disco sæpius tuberculatum ; ungue valde carnoso, concavo, ascendente, margine nunc eroso et glanduloso, sæpiùs (an semper) processus 2, carnosos, clavatos, ex ore calcaris ortos, parallelos, adnatos gerente. Anthera parva, cavitate unguis brevior, lobis basi ascendentibus, rostello tridentato brevi adnatis. Glandulæ nudæ —Herbæ, (Indicæ,) radicibus testiculatis, caule folioso aut vaginato. Flores omnium minuti. Sp. 5. adhuc notæ quarum duæ sunt Gymnadenia ? tenuis *Wall. Cat. No.* 7057, et G. secunda. *ib. No.* 7054.

30. **Aopla.**—Calyx bilabiatus. Sepala lateralia deflexa, supremum erectum cum petalis agglutinatis galeam formans. Labellum lineare, ecalcaratum. Anthera brevis, erecta, lobis brevibus ascendentibus, rostello decurvo elongato. Glandulæ nudæ.—Herba (Indica) radicibus testiculatis. Folium solitarium, radicale. Spica laxa secunda. Flores herbacei.—Sp. 1. *A. reniformis.* (=Herminium reniforme Wall. Cat. no. 7067.)

1902

[illegible] [illegible] [illegible]

1702

* MAYTÉNUS chilénsis.

Chilian Mayten.

POLYGAMIA *MONŒCIA.*

Nat. ord. Celastrineæ. *R. Br.* (*Introduction to the Natural System of Botany, p.* 110.)

MAYTENUS Juss. *Flores* polygami. *Calyx* 5-fidus, parvus, persistens. *Petala* 5, sepalis alterna, patentissima. *Stamina* 5, petalis alterna. *Discus* carnosus circa ovarium. *Stigma* sessile, 2-3-lobum. *Capsula* 1-4-valvis, valvis medio septiferis. *Semina* in fundo pauca, arillata. *Embryo* planus in albumine carnoso.——Arbusculæ *Peruvianæ aut Chilenses,* foliis *alternis, simplicibus, coriaceis, perennantibus, dentatis,* floribus *axillaribus albido virescentibus, minimis.* Capsulæ *sæpius intus croceæ.* De Cand. Prodr. 2. 9.

M. *chilensis ;* foliis elliptico-oblongis basi attenuatis apice acuminatissimis margine serratis. *D. C. l. c.*
Maiten. "*Feuill. obs.* 3. 39. *t.* 27."
Senacia Maytenus. *Lam. illustr. n.* 1712.
Celastrus Maytenus. *Willd. sp. pl.* 1. 1127.
Celastrus uncinatus. *Fl. Peruv.* 3. *t.* 230. *fig. A.*
Maytenus boaria. *Molina ?*
Maytenus chilensis. *Hooker and Arnott. in Bot. Miscell.* 3. 171.

Frutex *sempervirens, in hortis orgyalis et ultra.* Folia *ovato-lanceolata, tenuia, glanduloso-serrulata, exstipulata, glaberrima.* Flores *axillares, fasciculati, herbacei, parvi, polygami.* Masculorum calyx *inferus, parvus, 5-dentatus ;* petala 5, *oblonga, obtusa, concava ;* discus *carnosus, 5-lobus ;* stamina 5, *petalis alterna et breviora ; pistilli rudimentum.* Fœminei *in horto nondum apparuêre.* Capsulæ *magnitudine pisi, turbinati, cinerei, coriacei, loculicido-bivalves, dispermi.* Semina 2, *erecta, arillo croceo vestita.*

A handsome evergreen shrub, which has been growing for some years in the garden of the Horticultural Society. It succeeds best trained to the front of a south wall, but it also survives the winter without even that slight protection. It would, no doubt, prove perfectly hardy in the milder parts of England and Ireland.

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* From Mayten, the vernacular name among the Chilenos.

Its native country is Chili, where it seems to be a very common plant. Flowers in May.

Fig. 1, represents a sterile flower magnified; 2, the calyx and disk after the petals and stamens are removed; 3 and 4, stamens. We have not yet met with any fertile flowers. The description above given of the fruit is taken from wild specimens sent us by Dr. Gillies.

[illegible] 169 Piccadilly Sept. 1. 1834.

1703

* RHODÁNTHE Manglésii.

Captain Mangles's Rhodanthe.

SYNGENESIA *POLYGAMIA ÆQUALIS.*

Nat. ord. COMPOSITÆ. Tribe *Senecionideæ*, Subtribe *Gnaphalieæ*. 3. *Helichryseæ* Lessing.

RHODANTHE. Capitulum multiflorum, homogamum. Pappus uniserialis, piliformis, plumosus, distinctus. Achænium erostre, lanatum. Receptaculum nudum.

R. *Manglesii.*

Herba *annua, erecta, ramosa, omnino depilata, obscurè glauca; ramis teretibus distanter foliatis.* Folia *oblonga, obtusa, amplexicaulia.* Capitula *solitaria, turbinata, pedunculis nudiusculis inserta.* Involucri *squamæ membranaceæ, ovatæ, acutæ, exteriores argenteæ rubicundæ, interiores patentes amœnè roseæ, apice denticulatæ.* Receptaculum *nudum.* Corollæ *tubulosæ, glabræ, luteæ, hermaphroditæ.* Rami *stigmatis divergentes, lineares.* Achenium *densissimè lanatum.* Pappus *uniserialis, piliformis, plumosus, longitudine tubi corollæ.*

A charming greenhouse annual, introduced from the Swan River Colony in New Holland by Captain Mangles, R. N. after whom we have named it. It first flowered in the beautiful collection of Robert Mangles, Esq. of Sunning Hill, where our drawing was obtained in 1833, and whence it has since been liberally distributed. In token of its beauty it received the distinction of a medal at one of the great exhibitions in the Garden of the Horticultural Society.

Its season of perfection is May and June, at which time there is nothing in the Gardens that equals it in beauty, for it possesses the brilliancy of the Cape Helichrysa, without their stiffness and formality. In July it becomes shabby, and by the beginning of August its seed is ripe and its life departed.

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* From *ῥοδον*, a rose, and *ἀνϑος*, a flower, in allusion to the colour of the flower-heads.

It requires to be treated as a tender annual, and to be kept in a cool greenhouse during its time of growth; too much heat seems to be particularly offensive to it.

The Botanical relationship of *Rhodanthe* seems to be greatest with *Podotheca*, from which it differs in having a pappus composed of a number of perfectly distinct filiform feathery rays.

1704

[illegible]

* GÍLIA trícolor.

Three-coloured Gilia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. POLEMONIACEÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 219.)

GILIA. Supra, vol. 19, *fol.* 1622, *in textu.*

§ 3. EUGILIA. *Folia alterna pinnatifida v. pinnatisecta. Flores subsolitarii, v. sæpius glomerati. Corollæ tubus calyce subbrevior.* Bentham supra, fol. 1622.

G. *tricolor;* caule erecto glabro folioso, foliis bipinnatisectis: segmentis lineari-subulatis, corymbis 3-6-floris virgato-paniculatis, corollis calyce subtriplò longioribus. *Bentham l. c. Hort. Trans. n. s. vol.* 1. *t.* 18. *f.* 3.

Mr. Bentham, in his account of this in the Transactions of the Horticultural Society, remarks that it is "perhaps the handsomest of the new Polemoniaceæ received from California, both from the general appearance of the plant, and the abundance and brilliancy of colour of the flowers. It grows to the height of about a foot, with an erect stem, and foliage much resembling that of *G. capitata*, but the flowers are very much longer, and instead of being collected in globose heads widely spread at the end of long peduncles, they are few in number in each head; but the peduncles being much shorter and very numerous, they form a large and rather dense panicle, in which the deep orange of the centre of the colour, and the light purple or white of the margin, separated by a circle of deep purple, show off to great advantage."

It is quite hardy, and will grow in any kind of soil. The time of flowering is from July to September, but it may be retarded or advanced by a little management. Nothing can well be prettier than this is when thickly filling a bed a few feet in length and breadth.

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* See fol. 1170.

Miss Drake del.   Publ by J. Ridgway 169 Piccadilly Dec 1 1834   S. Watts sc.

* LUPÍNUS nánus.

Dwarf Lupine.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 86.)

LUPINUS. Supra, vol. 13, *fol.* 1096.

L. *nanus ;* annuus humilis pilosiusculus, caulibus decumbentibus parum ramosis, foliolis 5-7 spathulatis, floribus verticillatis, calycibus sericeo-lanatis villosis obsoletè appendiculatis : labio superiore bipartito inferiore longiore obscurè tridentato.

L. nanus. *Bentham in Hort. Trans. vol.* 1. *n. s. t.* 14. *f.* 1.

We have no prettier annual than this little Lupine, which has recently been introduced from California by the Horticultural Society. It forms a low tufted plant, from 6 inches to a foot in height, producing a succession of upright shoots, terminated by several tiers of flowers, which continue to open in succession for two months. The colours being bright purple, intermingled with white and rose, a gay variegated appearance is produced, which is extremely agreeable when the plant is grown in masses.

It is well adapted for covering flower-beds, or for forming a compartment in a parterre, or for the edge of a small clump, or in short for any purpose which requires neatness, and a protracted blooming.

If sown in the autumn it will flower in May and June ; if sown in spring, it will be in beauty in August and September; and by deferring the period of sowing till the beginning of June, it may be made to blossom as late as November.

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* See fol. 1098.

1700

Miss Drake del. Pub by J. Ridgway 169 Piccadilly Feb 1 1834 J Watts sc

1706

* CEROPÉGIA élegans.

Elegant Ceropegia.

PENTANDRIA *DIGYNIA.*

Nat. ord. ASCLEPIADEÆ. *R. Br.* (*Introduction to the Natural System of Botany, p.* 210.)

CEROPEGIA. Supra, vol. 8, *fol.* 626.

C. *elegans ;* volubilis, lævis, radice fibrosa, foliis oblongis acutis, pedunculis axillaribus 1-2-floris, corollæ tubo clavato incurvo basi inflato-ventricoso, limbo hemisphærico, laciniis ligulatis longe ciliatis, lobis coronæ stamineæ exterioribus profunde bipartitis. *Wallich. in Bot. Mag. t.* 3015.

A native of the mountains of India called the Nilgherry, and introduced to this country in 1826 by Dr. Wallich.

It is a small twining plant, with dingy purplish brown stems and leaves, and livid flowers blotched with purple. They have little beauty, except when they are open; at that time their orifice is closed by a number of long purple bristles, which converge over the centre, and form a sort of natural *chevaux-de-frise,* which will prevent both the ingress and egress of insects.

Being an East Indian plant, it is usually kept in the stove, where it flowers well enough from May to October, and is easily multiplied by cuttings. It is, however, nearly hardy; it thrives better in the open border trained to a stick in a sheltered place, and in the winter requires no better protection than a common green-house.

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* From κηροπήγιον a candlestick, in allusion to the resemblance borne by the corollas of some species to the branch of an antique candelabra.

1707

* ECHINOCÁCTUS Eyriésii.

Sweet-scented Spiny Cactus.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. CACTEÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 54.)

ECHINOCACTUS Link et Otto. Omnia Cerei, sed caulis umbilicatus v. globosus.

E. *Eyriesii ;* caule subgloboso umbilicato, costis 13 continuis acutatis subundulatis, tuberculis lanatis spinas plures breves rigidas rectas gerentibus, flore bucciniformi curvato 6 uncias longo odoratissimo extus cinereo villoso, petalis acutissimis stellatis.

E. Eyriesii. *Otto in verhandl. Preuss. Gart. ver. c. ic.*

We do not find any mention of this remarkable species in the treatises of either Martius, Link and Otto, or De Candolle; but we believe it is published with a figure in the Transactions of the Prussian Horticultural Society, a work we do not happen to have at hand.

It was presented to the Horticultural Society some years since by Sir John Lubbock, who had procured it from Mexico, where the genus seems to exist in great numbers; it flowers at various seasons, and now and then forms an offset.

Independently of the large size of its flowers, which rival in dimensions those of the Cereus tribe of *Cacti*, it is remarkable for the rich delicious odour they exhale at night, at which time its glorious blossoms expand. When young they resemble long sooty-grey horns covered over with a thick shaggy hairiness, and would never be suspected to conceal a form of the utmost beauty, or a clear and delicate complexion. When the hour of perfection has arrived, and the coarse veil of hair begins to be withdrawn by the expansion of the unfolding petals, one is amazed at the unexpected loveliness which stands revealed in the form of this vegetable star, whose rays are of the softest white, while the disk is of a rich yellow formed by the stigma and the clustering anthers.

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* The form of the marine animals called Echini has naturally suggested the application of their name to plants which so much resemble them.

1708

1708

* CATASÉTUM semiapértum.

Half-open Catasetum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Juss.* §. Vandeæ. *Lindl.* (*Introduction to the Natural System of Botany, p.* 262.)

CATASETUM. Supra, vol. 10. *fol.* 840.

C. *semiapertum ;* foliis oblongo-lanceolatis undulatis racemo compacto longioribus, perianthio subpatente secundo : laciniis lanceolatis, labello apice incurvo cucullato marginibus ciliato-denticulatis.

C. semiapertum. *Hooker Exot. fl. t.* 213. *Lindl. gen. et sp. Orch. p.* 156.

Habitus, pseudobulbi, *et* folia *omnino* C. tridentati. Flores *diversissimi, odorati, herbacei, immaculati : sepalis petalisque angustè lanceolatis sæpius dependentibus ob labellum posticum.* Labellum *subcompresum, carnosum, lobo apicis rotundato incurvo, lateralibus ciliâ tenui, denticulatâ tamen, marginatis.*

First introduced by Mr. Bell Edward Lloyd, who sent it from Brazil to Miss Falkner of Fairfield, about 8 or 9 years ago. More recently it has been transmitted to Mr. Harrison of Liverpool by Dr. Dundas, an eminent medical gentleman residing at Bahia.

It is not so shewy as *C. tridentatum*, but it is peculiarly fragrant, a quality which all the other known species are destitute of. It requires the same treatment ; and when in rapid growth will thrive the better if its roots are actually allowed to immerse themselves in water.

Our specimen was communicated to us by Mr. Harrison in February last.

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* See folio 1667.

1709.

Miss Drake del.   Pub. by J. Ridgway 169 Piccadilly Feb 1 1834.   J. Watts sc.

* TALAÚMA Candóllii.

De Candolle's Talaum Tree.

POLYANDRIA *POLYGYNIA.*

Nat. ord. Magnoliaceæ. *Juss.* (*Introduction to the Natural System of Botany, p.* 24.)

TALAUMA Juss. *Petala* 9-15, ordine ternario serialia. *Stamina* numerosa, antheris anticis. *Ovaria* plura, coadunata, biovulata. *Fructus* coadunatione unicus, strobiliformis, lignosus, irregulariter dehiscens, seminibus 1-2 pendulis, in foveolis receptaculi centralis cylindraceo-elongati dehiscentiâ liberi. *Blume Flora Javæ Magnol. p.* 29.

T. *Candollii*; foliis oblongis utrinque acuminatis glabris, floribus 9-12-petalis, petalis exterioribus calycinis reliquis triente brevioribus. *Bl. l. c. t.* 9.

Magnolia odoratissima. *Reinwdt.*

A native of Java, where it is found growing in thickets to the height of about 15 feet, and perfuming the air with so delicious an odour that the very Javanese think it worth the pains of cultivation.

Its flowers open very unwillingly in the stove. Dr. Blume has represented them closed, as they commonly appear; but we were so fortunate as to be able to sketch the plant with its flowers fully expanded, just as they were about to drop off. At first they are a pale lemon colour, but they change to a sort of buff, in which state we have represented them.

It is a tender stove plant, increased only by inarching upon Magnolia pumila, which Dr. Blume has ascertained to be also a Talauma, or by layers, or by having a pot of earth fastened round a wounded branch. It flowers in February and March.

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* The vernacular name of the South American species.

1710.

[illegible] J. Ridgway 169 Piccadilly [illegible]

S. Watts sc.

* LEPTOSÍPHON androsáceus.

Androsace-like Leptosiphon.

PENTANDRIA *MONOGYNIA.*

Nat. ord. POLEMONIACEÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 219.)

LEPTOSIPHON. Bentham. *Calyx* tubuloso-campanulatus, æqualis, semi-5-fidus, lobis lineari-subulatis acutis, sinubus membranaceis. *Corolla* infundibuliformis, (hypocrateriformis) tubo longè exserto tenuissimo, limbo campanulato (rotato) 5-fido; lobis ovalibus obtusis integerrimis. *Stamina* fauce inserta; *antheræ* oblongæ, basi sagittatæ. *Capsulæ* loculi polyspermi.——Herbæ *annuæ, basi glabræ, apice pubescentes.* Folia *sessilia, opposita, palmatisecta, segmentis linearibus v. subulatis.* Flores *densè corymboso-capitati, axi sublanato.* Bracteæ *imbricatæ,* foliis *conformes, segmentis ciliato-hirsutis.* Bentham, supra, fol. 1622.

L. *androsaceus;* foliis 5-7-fidis: laciniis oblongo-linearibus, corollæ tubo limbo 2-3plo longiore, staminibus limbo corollæ triplò brevioribus. *Bentham, l. c. Hort. Trans. vol.* 1. *n. s. t.* 18. *f.* 1.

Herba *erecta, spithamæa, ramosa, annua, internodiis foliis duplo longioribus, undique pilis rigescentibus articulatis sparsis vestita.* Caulis *teres, purpurascens.* Folia *opposita, sessilia, digitato-4-10-partita, nunquam v. rarissime 3-5-7-v. 9-partita, laciniis linearibus acuminatis, ciliatis;* superiora *densissime flores fasciculatos involucrantia, eorumque tubo æqualia.* Calyx *infundibuliformis, 5-fidus, laciniis æqualibus, triangulari-subulatis, pilosis, membrana tenui ad sinus junctis.* Corolla *unciam longa, alba, purpurea, aut violacea, hypocrateriformis; tubo gracillimo lutescente, glanduloso-pubescente; limbo planiusculo utrinque glabro: laciniis oblongis obtusè apiculatis.* Stamina *brevia, exserta, fauce purpurea sub sinubus inserta.* Pollen *luteum.* Ovarium *parvum, oblongum, atroviride, disco nullo; 3-loculare, polyspermum.* Stylus *capillaris;* stigma *luteum 3-partitum, laciniis angustissimis obtusis æqualibus.*

"This is a bushy annual, growing to the height of eight or ten inches, smooth in the lower part, with the upper leaves and extremities of the branches slightly downy. The leaves are opposite and sessile, but nearly divided to the

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* Literally *slender-tube,* in allusion to the structure of the corolla.

base into a number of linear segments, so as to appear to be whorled. The flowers are collected into terminal heads, surrounded at their base by a number of floral leaves, divided, like the stem leaves, into linear segments. The long slender tube of the corolla projects beyond these leaves, and bears at the top five spreading oval divisions, varying in colour from white to pale blue and pink. The multitude of these flowers gives the plant a very gay appearance, and as it is perfectly hardy and promises to seed well, there is no doubt but that in a short time it will be found an important addition to our flower-beds."

To the foregoing account by Mr. Bentham, in the Horticultural Society's Transactions, we have little to add. Although the species is perfectly hardy, yet it cannot bear our summer heats, and only flourishes in the spring, or more particularly the autumn, when the sun has lost his power, and the nights are cool with heavy dews. It should therefore either be sown in the autumn, so as to flower early, or in June, in order that it may be ready for blossoming in September.

Any kind of soil seems to suit it, but it is not improbable that a shaded American border may be best. It is a native of California, whence it was sent by Mr. Douglas.

The leaves are deeply divided into very narrow sharp-pointed segments, which we remark are always some *even* number, 4, or 6, or 8, or 10, and never an odd number, a fact that seems to deserve the attention of the systematic Botanist.

1711.

[illegible] Pub by J. Ridgway 169 Piccadilly Oct 1 [illegible] [illegible]

* CALCEOLARIA polifólia.

White-leaved Slipperwort.

DIANDRIA *MONOGYNIA.*

Nat. ord. Scrophularineæ. *Juss.* (*Introduction to the Natural System of Botany, p.* 228.)

CALCEOLARIA. Supra, vol. 9, *fol.* 723.

C. *polifolia* ; suffruticosa, caulibus ascendentibus foliisque ovatis incano-tomentosis levissimè crenatis, pedunculis dichotomis, floribus congestis, corollæ labio inferiore majore subgloboso, staminibus stylo brevioribus.
C. polifolia. *Hooker in Bot. Mag. t.* 2897.

Apparently a very common plant in the passes in the mountains between Valparaiso and St. Jago, for almost every collection from that locality contains it.

It is a hardy perennial, about a foot high, with a woody stem, which would probably become shrubby in favourable situations. Its little hoary leaves, and very numerous pale primrose-coloured flowers, have quite a peculiar appearance, and render it extremely different from all the other species.

It thrives with the same treatment as other Calceolarias, but it is impatient of damp in winter ; cuttings readily multiply it.

Our drawing was made in September 1833, in the garden of the Horticultural Society, where it had been raised from seed received from Mr. Cruckshanks.

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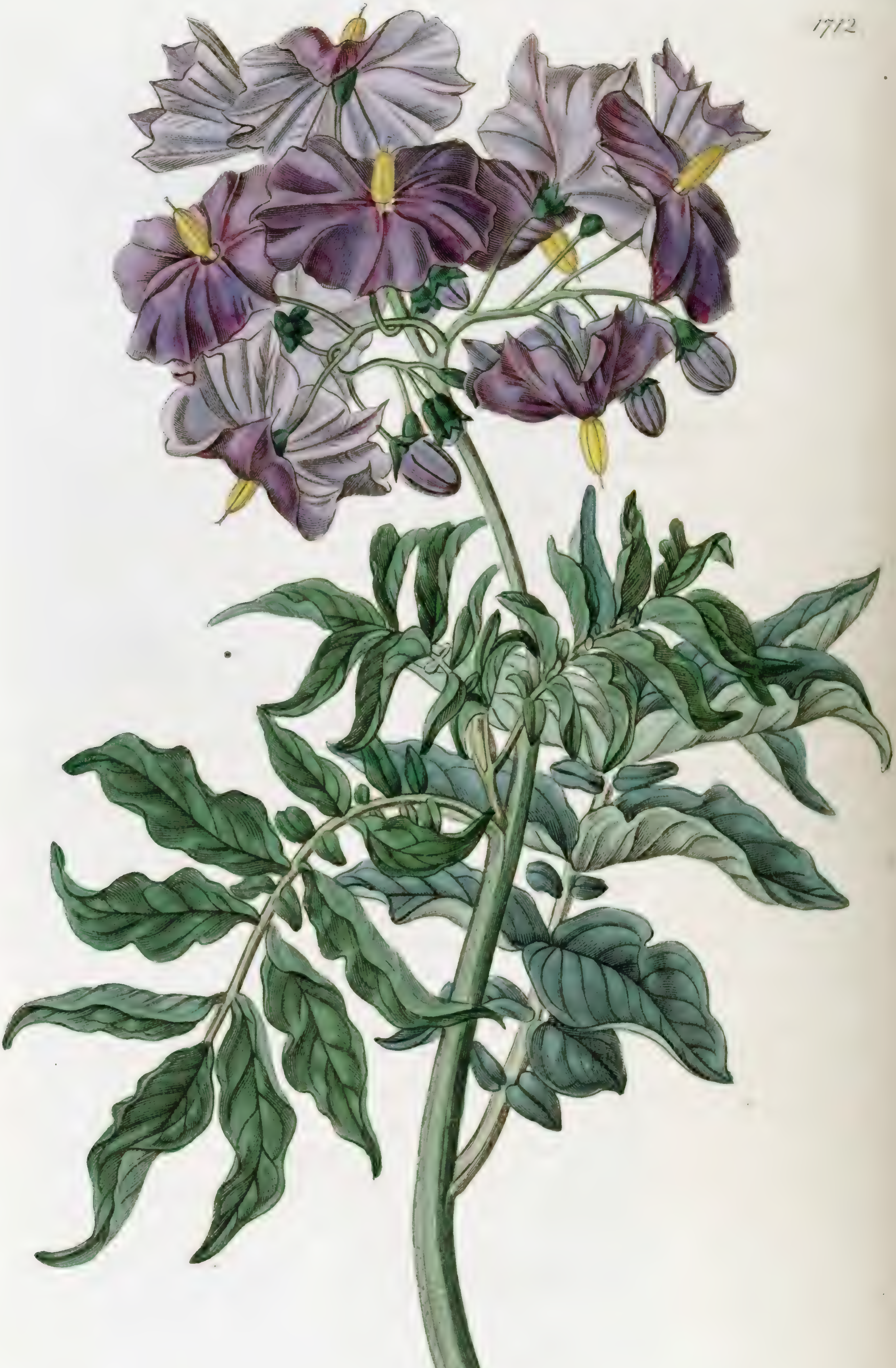
* See folio 1214.



Miss Drake del.   Pub by J. Ridgway 169 Piccadilly Jan 1 1834   J. Watts sc.

* SOLÁNUM etuberósum.

Tuberless Solanum.

PENTANDRIA *MONOGYNIA.*

Nat. ord. SOLANEÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 231.)

SOLANUM. Supra, vol. 1, *fol.* 71.

* *Inermia, foliis imparipinnatis ; racemis corymbosis terminalibus.*

S. *etuberósum ;* rhizomate crasso subterraneo etuberoso, caule herbaceo, foliolis inæqualibus complicatis undulatissimis approximatis alternis minutis, pedicellis articulatis, calycibus corollisque 5-angulatis glabris.

Facies omnino S. tuberosi, *sed tubera nulla profert; flores majores sunt, breviùs pedunculati, calyxque glaber est et lucidus, nec pilis hispidus. Species certo certius distinctissima, etsi notis levibus cognoscenda.*

This curious plant is a hardy perennial, native of Chili, whence it was obtained some years since by the Horticultural Society. It bears its rich clusters of deep purple blossoms, with a golden yellow centre, from July to October, and is very easily multiplied by dividing its stout rooting underground stems.

Although extremely similar to the Potatoe in appearance, yet its larger and more compact flowers, and its want of the power of producing tubers render it a proper plant for a flower-garden.

There can be no doubt that this is a species essentially distinct from the Potatoe, and yet it is impossible to point out any character by which it is to be positively distinguished, except the want of tubers, and the smoothness of the calyx and flower-stalks ; these latter have a shining, and nearly downless surface, instead of the rough dull appearance which we meet with in those parts in the common Potatoe.

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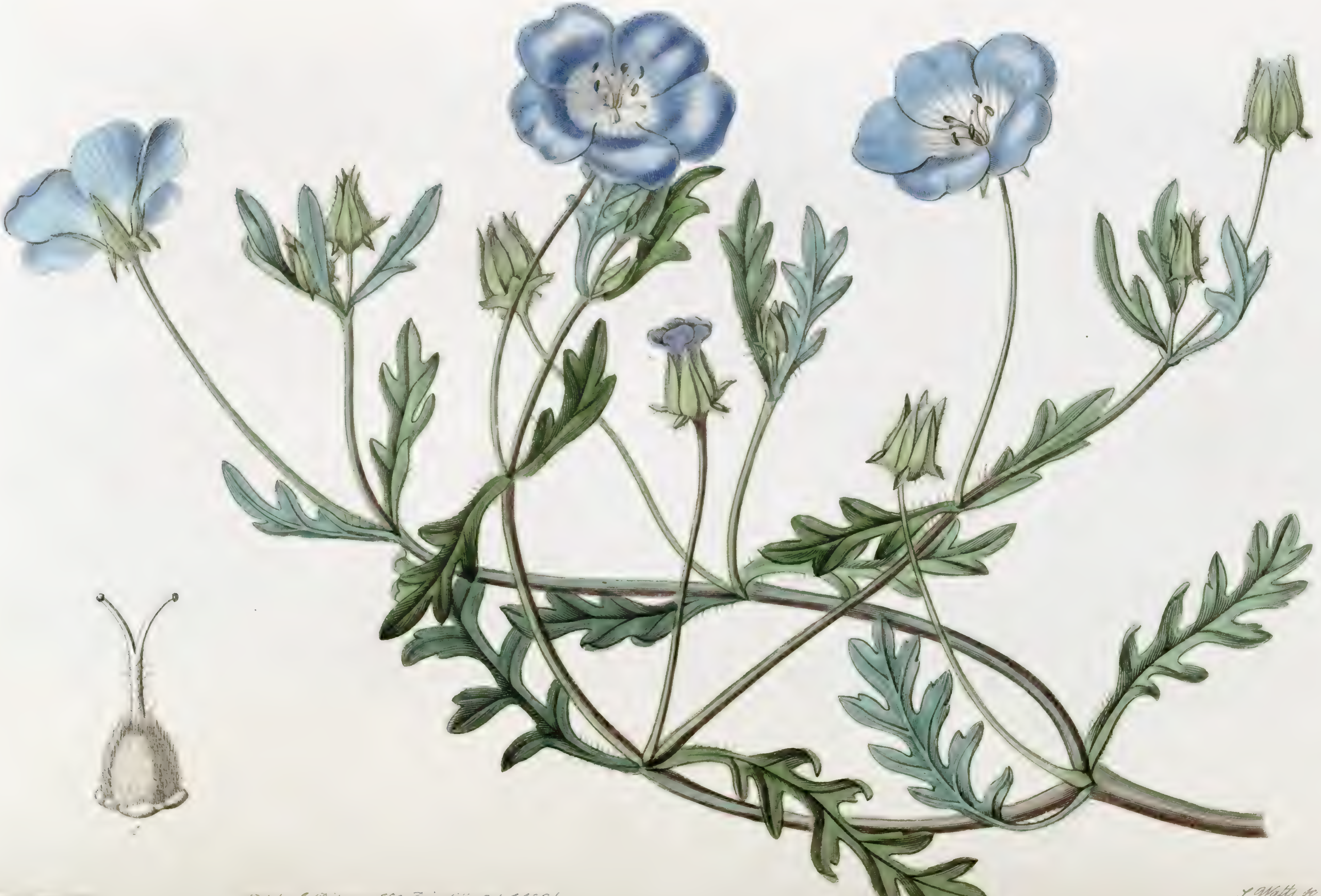
* See folio 1516.

1713.



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Pub by J. Ridgway 169 Piccadilly Oct. 1. 1834.

J. Watts sc.

* NEMÓPHILA insígnis.

Shewy Nemophila.

PENTANDRIA *MONOGYNIA.*

Nat. ord. HYDROPHYLLEÆ. *R. Br.* (*Introduction to the Natural System of Botany, p.* 244.)

NEMOPHILA. Supra, vol. 9, *fol.* 740.

N. *insignis;* foliis oppositis pinnatifidis basi in petiolum angustatis: lobis integerrimis 1-2-dentatisve, calycis sinubus reflexis, corollis calyce duplo longioribus, ovariis multi-ovulatis. *Bentham in Hort. Trans. vol.* 1. *n. s. p.* 643.

The Nemophilas are all difficult plants to preserve in gardens. *N. phacelioides* has long since disappeared; and we fear this brilliant Californian species, which flowered in August 1833, in the garden of the Horticultural Society, will scarcely be found more manageable. Mr. Bentham gives the following account of it in the Transactions of the Horticultural Society:—

"This elegant species of Nemophila is readily distinguished by the size of the flowers, which are larger even than those of *N. phacelioides*, (figured in the Botanical Magazine, t. 2373.) It is a low procumbent herb, but less straggling than the *parviflora* and *peduncularis.* The leaves are from one to two inches long, green, with a few rigid hairs; the lobes from 3 to 5 on each side, deeply cut, but not reaching the midrib, of nearly equal size on the same leaf, ovate and slightly falcate. The peduncles axillary, solitary, one-flowered, nearly twice as long as the leaves. Flowers blue, above an inch in diameter. The ovarium contains usually 20 or 24 ovula, regularly arranged on each side of the central lines of the broad fleshy placenta, and from 8 to 12 of these ovula usually attain maturity in each capsule.

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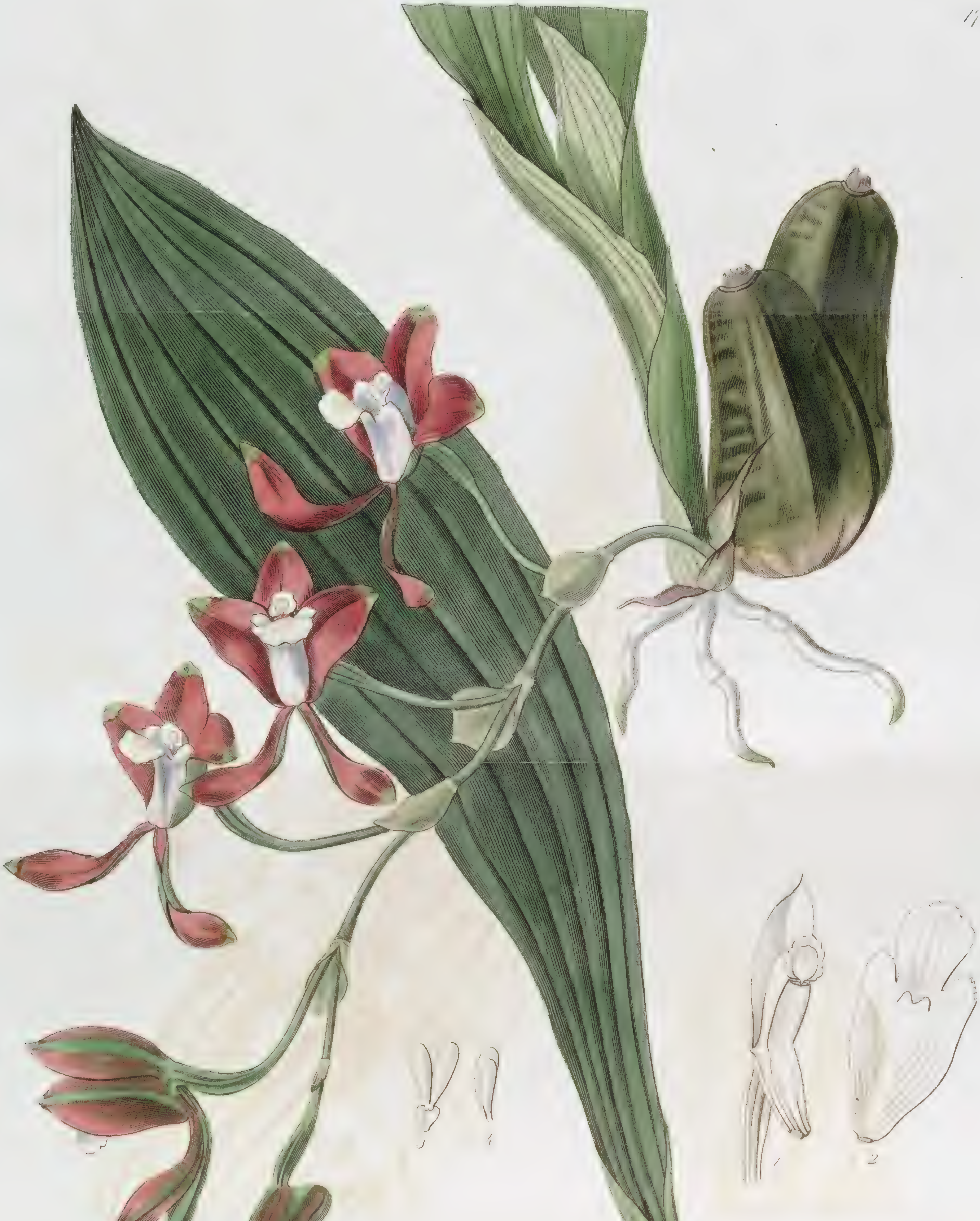
* See folio 1601.

" It is a hardy annual, requiring a rich soil, not damp, and a situation fully exposed to the sun ; it must be protected carefully from wet when forming its seeds, or they will not ripen ; indeed it produced its seeds in the garden very sparingly, with all the care that could be given to it."

1714.



* BATEMÁNNIA Cólleyi.

Colley's Batemannia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ § VANDEÆ. (*Introduction to the Natural System of Botany, p.* 262.)

BATEMANNIA. Flores ringentes. *Sepala* patentia, lateralia unguiculata basi æqualia. *Petala* sepalis latiora, basi obliqua, pedi producto columnæ adnata. *Labellum* cum columna articulatum, trilobum, cucullatum. *Columna* semiteres, basi elongata, clinandrio marginato. *Anthera* parva, bilocularis, membranacea. *Pollinia* 2, postice biloba, glandulâ triangulari, caudiculâ nulla.

B. *Colleyi.*

Epiphyta. Pseudobulbi *ovati, subtetragoni, lucidi, olivacei, subcorrugati, ovi gallinacei magnitudine.* Folia 2-3, *obovato-oblonga, plicata, basi angustata.* Racemus *radicalis, pendulus, semipedalis, laxè* 5-10-*florus.* Bracteæ *rhombeæ, striatæ, cucullatæ, inflatæ.* Flores *pedicellati,* ovario *pedicello breviore.* Sepala *et* petala *poll. longa, intus fusco-purpurea, extus viridi vitta notata, apice quoque viridia;* sepalum *posterius oblongum obtusiusculum:* lateralia *spatulata divergentia petalis paulo longiora;* petala *a basi triangulari oblonga, sepalo supremo latiora.* Labellum *oblongum, ultra medium disci bidentatum, album, intus lutescens, extus levissime rubescens; lobis rotundatis, serrulatis, lateralibus intermedio subcuneato brevioribus.* Anthera *membranacea, depressa, quadrata, 2-locularis.* Rostellum *subulatum.* Clinandrium *marginatum, dentatum.* Stigma; *rima parva transversa.*

Sent from Demerara to James Bateman, Esq. by Mr. Colley, his collector in that country, who has just returned from a successful mission with a considerable number of epiphytes, which are new to our gardens.

Mr. Colley states that this plant, when in perfection, bears double the number of flowers in the accompanying plate. Even in its present state, it is a very handsome species, and extremely different from all genera previously

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* We name this genus in compliment to James Bateman, Esq. of Knypersley, an ardent collector and successful cultivator of Orchideous epiphytes. Mr. Colley, after whom the species is called, was Mr. Bateman's collector in Demerara.

described. It belongs to the Maxillaria set of Vandeæ, which is characterised by the projecting base of the column. But in this genus the petals are not only much larger than the sepals, but seem as if they had pushed the lateral ones out of their place. It is generally the sepals which grow to the lengthened base of the column, hiding the lip until the flower opens; but in Batemannia the sepals have a narrow contracted base, and the office of protecting the lip is performed by the broad-based petals.

Our specimens were communicated, along with a drawing by Mr. Holland, in August last.

Fig. 1 is a view of the column and back sepal, the other parts being cut away; 2 is the inside of the lip; 3 is a view of the pollen masses from above; 4 one of the pollen masses with its posterior lobe.

1715

[illegible] [illegible] [illegible]

1715

* KENNÉDYA nígricans.

Dingy-flowered Kennedya.

DIADELPHIA *DECANDRIA.*

Nat. ord. Leguminosæ. *Juss.* (*Introduction to the Natural System of Botany*, *p.* 86.)

KENNEDYA. Supra, vol. 11, *fol.* 944.

§. 1. *Foliis 3-foliolatis, carinâ rectâ vexillo sublongiore.* D. C.

K. *nigricans;* foliolis ovato-oblongis obtusis solitariis ternatisve, racemis simplicibus, floribus erectis, calycibus villosis basi angustatis.

Frutex *volubilis, facie* K. rubicundæ; *sed foliola latiora, obtusiora, sæpe solitaria, magis reticulata,* racemi *simplices nec paniculati;* flores *erecti, secundi, quasi resupinati, nec penduli;* calyces *multo angustiores et villosiores; demum* petala *purpureo-nigra maculâ oblongâ viridi in discum vexilli.*

A fine addition to the species of green-house twiners, native of New Holland, where its seeds were collected by Dr. Nisbet. Our specimens were supplied from the garden of Boyd Miller, Esq. of Collier's Wood, near Mitcham.

It is very near *K. rubicunda,* from which it differs not only in the remarkable colour of the petals, but also in its broader and more reticulated leaves, and in its much more compact inflorescence, the flowers of which stand erect, instead of being pendulous, as in that species. It flowers in April.

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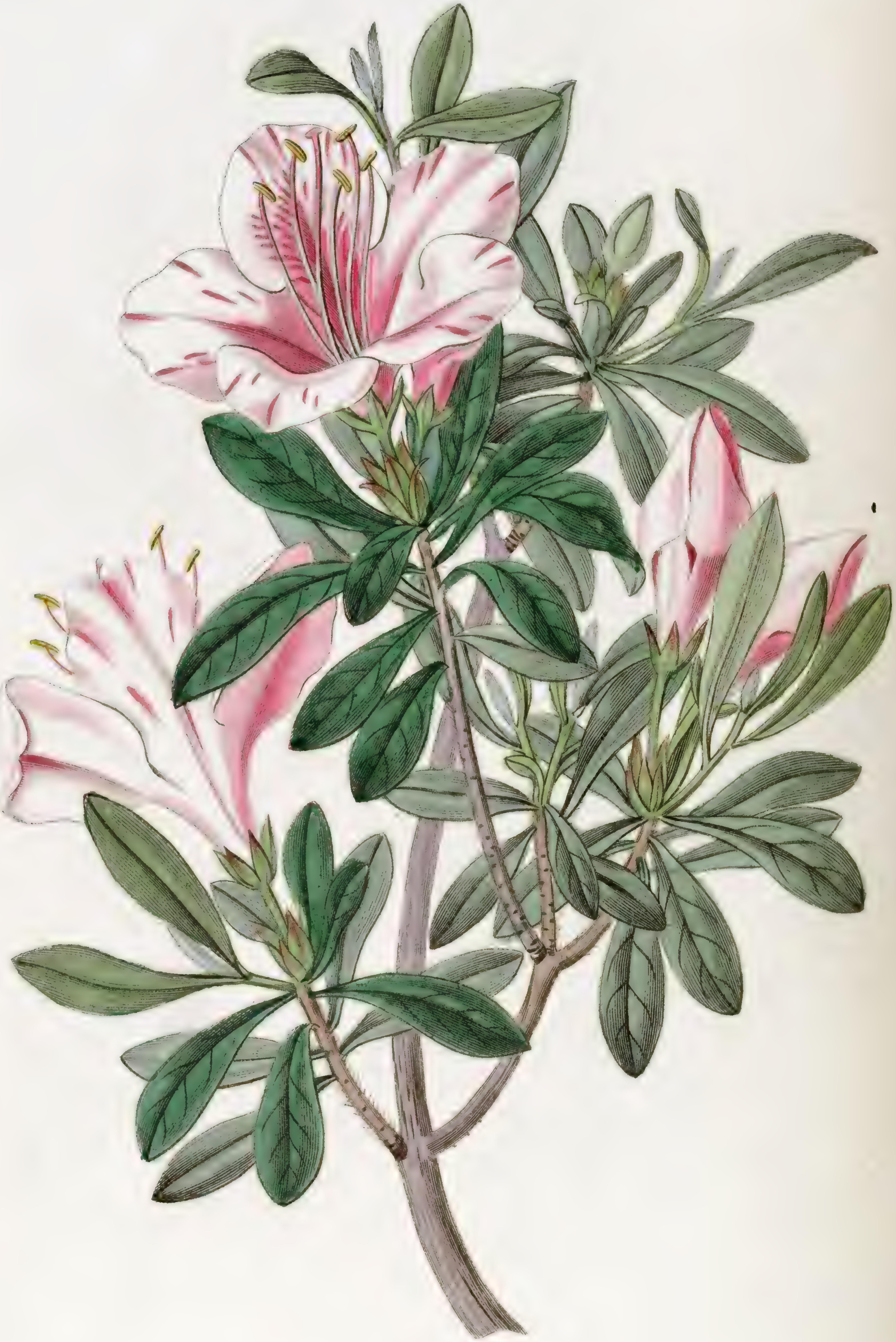
* See folio 1421.

1716



Miss Drake del. Pub. by J. Ridgway 169 Piccadilly Nov. 1. 1834. J. Watts sc.

* AZALEA índica; *variegáta.*

The Variegated Chinese Azalea.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Ericeæ. *Juss.* (*Introduction to the Natural System of Botany, p.* 182.)

AZALEA. Supra, vol. 2, *fol.* 120.

A. *indica;* corollis tubuloso-campanulatis, foliis spatulato-oblongis obtusis v. lanceolatis costâ rufo-hispidâ, calycibus minimis hispidissimis.

A. indica; *Linn. Sp. pl.* 214.

Var. *variegata;* floribus pentandris albo roseoque variegatis, foliis spatulatis obtusis.

This is the celebrated variegated Chinese Azalea, which so many attempts have been made in vain for these twenty years to procure alive. It was brought home by Mr. M'Killigan in 1832, and is now in possession of Mr. Knight, of the King's Road.

In habit and leaves it is exactly the same as the brick-red kind figured at *t.* 1700; but it is far handsomer in flower. The blossoms which were produced in Mr. Knight's Nursery, not having been so perfect as could have been wished, we have completed our figure from a Chinese drawing in the possession of the Horticultural Society, which had been made under the inspection of Mr. Reeves.

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* See folio 1366.

1717.

[illegible] del. Pub. by J. Ridgway 169 Piccadilly Nov. 1 1834. J. Watts sc.

* ECHINOCÁCTUS oxygónus.

Sharp-angled spiny Cactus.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. Cacteæ. *Juss.* (*Introduction to the Natural System of Botany, p.* 54.)

ECHINOCACTUS. Supra, fol. 1707.

E. *oxygonus;* glaucescens subglobosus 14-angularis, costis acutis repandis, spinis patulis inæqualibus, flore longissimo. *Link et Otto in Verhandl. des Pr. Gart. Vereins, vol.* 6. *t.* 1.

We have been favoured by Mr. Frederick Mackie with the figure of this species, which he received along with a large number of other rare and valuable succulent plants, belonging to the unrivalled collection of Mr. Hitchin, which he has recently added to his Nursery at Norwich.

The flower remained expanded about 48 hours. The species is thus described in the Transactions of the Prussian Horticultural Society:—

"The stem is from 10 inches to a foot in height, nearly 10 inches in diameter on the top, somewhat smaller below, and nearly of a globular form, of a bluish-green colour. Its ribs, which are fourteen, rise from a broad base, running into an acute edge. The furrows are somewhat sharp; spines about 14, of various sizes, the outer generally larger, the inner smaller; those more or less divaricate from each other, these standing up nearly perpendicular; all of a brown colour, cone-like, not flat, the younger surrounded by a tomentum, which is more or less wanting in the older. The flowers proceed from the furrows about the middle of the stem; are nearly a foot long; reversed, cone-shaped; the tube somewhat curved; firmly attached to the germen; exteriorly covered with leaflets; the lower are small and red, increasing upwards in size, and at last terminating in the petals, which are broad, lance-shaped, and of a rose-colour. The stamens are numerous, and every where internally attached to the tube, shorter than the flower. The stigma is multifid and equal to the stamens. We received this plant from Mr. Sello, from the Brazils, without giving its strict habitat."

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* See folio 1707.

1718.

[illegible] Pub. by J. Ridgway 169 Piccadilly Nov. 1. 1834. [illegible]

1718

* DEÚTZIA scábra.

Rough-leaved Deutzia.

DECANDRIA *TRIGYNIA.*

Nat. ord. Philadelpheæ. *Don.* (*Introduction to the Natural System of Botany, p.* 52.)

DEUTZIA. Thunb. *Calyx* 5-partitus. *Petala* 5, suberecta. *Stamina* 10, epigyna ; filamentis marginatis tridentatis. *Discus* epigynus cyathiformis. *Ovarium* 3-5-loculare polyspermum. *Styli* 3-5. *Stigmata* simplicia, compressa. *Pericarpium* chartaceum, umbilicatum, stylis persistentibus discoque carnoso coronatum, 3-5-loculare, polyspermum, basi dehiscens.——Frutices, foliis *deciduis, serratis, stellato-pilosis,* Philadelphi *facie.*

D. *scabra ;* foliis ovatis acutis argute serratis utrinque pilosis, racemis terminalibus tomentosis basi subcompositis, floribus sæpiùs trigynis.

D. scabra. *Thunb. fl. Jap. p.* 10. *et* 185. *t.* 24. *De Cand. prodr.* 3. *p.* 16.

Joro, vulgo Utsúgi v. Jamma Utsúgi *Kæmpf. amœn. exot.* p. 854.

Frutex *in hortis* ramis *gracilibus subscandentibus, cortice glabro castaneo vestitis.* Folia *ovata, acuminata, argutissimè serrata, utrinque stellatim pilosa, scabriuscula, petiolis brevibus lepidotis, atroviridia, subtùs paulò pallidiora.* Racemi *terminales, foliis longiores, erecti, basi subramosi, densè piloso-tomentosi.* Calyx *inferus, tomentosus, 5-partitus.* Petala *nivea 6-7 lineas longa, angusta, oblongo-lanceolata, obtusa, pubescentia.* Stamina 10, *alterna breviora,* filamentis *marginatis, tridentatis, dente intermedio longiore antherifero ;* Antheræ *subrotundæ, longitudinaliter dehiscentes.* Discus *epigynus cyathiformis, luteus, carnosus, margine subcrenulato.* Ovarium *inferum, 3-4-loculare, placentis carnosis polyspermis.* Styli 3-4, *filiformes, apice in stigmata compressa incrassati.*

A new hardy shrub, native of the Fakon mountains and neighbouring parts of Japan. For this most interesting addition to our gardens we are indebted to John Reeves,

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* Named by Thunberg after John Deutz, Sheriff of Amsterdam, &c. who was one of the gentlemen by whose assistance that Botanist was enabled to prosecute his researches in Japan.

Esq. who imported it in 1833. From a plant presented by that gentleman to the Horticultural Society our drawing was made in May last.

It forms a small shrub, which strikes freely from cuttings or layers, thriving in common garden soil. It appears to require to be trained to a stick, as its branches are not stiff enough to stand erect, and it seems to have something of a climbing habit. It is doubtful, however, whether this is not owing to weakness in its cultivated state, for Thunberg tells us that his plant is a little tree about as high as a man. We presume this species is the same as is represented by that Botanist in his Flora of Japan; although it must be confessed that the figure he has given would scarcely by itself sanction such a conclusion. But upon considering his description, and the account given by Kæmpfer of his *Joro Utsugi* plant, which Thunberg states to be the same as *D. scabra*, we suspect that any partial discrepancy which may be observable between our plant and the accounts of these writers, must be considered unimportant. The principal difficulty consists in the statement made by Thunberg, that the leaves of *Deutzia scabra* are used by the Japanese, on account of their roughness, for polishing furniture. This, if true, would certainly not be reconcileable with the plant before us; but in addition to the improbability of any plant allied to Philadelphus possessing any such property, it is to be remarked that Kæmpfer, a far better authority than Thunberg, makes no mention of their being employed for this purpose. He only says that the wood is used by the cabinet-makers for making the very finest of their pegs, for which its hardness and toughness render it well adapted.

1719.

Miss Drake del. Pub. by J. Ridgway 169 Piccadilly Nov. 1 183 J. Watts sc.

* BILLARDIÉRA ovális.

Oval-leaved Billardiera.

PENTANDRIA MONOGYNIA.

Nat. ord. Pittosporeæ. *R. Br.* (*Introduction to the Natural System of Botany, p.* 138.)

BILLARDIERA. Smith. Sepala 5, acuminata. *Corolla* tubuloso-campanulata, petalis 5; unguibus margine convolutis approximatis. *Stamina* petalorum longitudine; *antheris* liberis, linearibus, longitudinatiter dehiscentibus. *Ovarium* rectum, 2-loculare, polyspermum. *Pericarpium* molle, spongiosum, subbaccatum, loculis inflatis. *Semina* plurima, pulpâ nullâ obducta, rotunda, compressa.——Frutices *volubiles* (Australasici) foliis *integris serratisve*, floribus *sub-solitariis, viridi-lutescentibus, axillaribus, pendulis.*

B. *ovalis;* ramis junioribus pubescentibus, foliis lineari-oblongis obtusis utrinque concoloribus, pedunculis 1-floris glabris flori subæqualibus, petalis rectis obtusiusculis.

A native of Van Diemen's Land, whence it was introduced by Mr. Lowe, of Clapton, who furnished us with the specimen for our figure. It is nearly related to *B. longiflora*, from which it chiefly differs in its smaller and shorter flowers, and more oval obtuse leaves; with the fruit we are unacquainted. Its flowers change from greenish yellow to dark purple, and appear in May.

It is probable that it will be quite hardy enough to live in this country trained to a west wall, if protected from wet in winter; at all events a cold pit would be ample covering for it, and for all the other species. The beautiful *Sollya* also (figured at tab. 1466 of this work) grows with all its native luxuriance in such a situation.

With regard to the latter plant, we avail ourselves of the present opportunity of making a few remarks touching its differences from *Billardiera*. At the time when we described *Sollya*, we were acquainted only with its flowers; but their structure was so different from that of *Billardiera* that we had no doubt of its constituting a distinct genus. Its inflorescence opposite the leaves, short somewhat campanulate corollas, short stamens, with the anthers adhering in a cone round the style, and opening by two pores at their points, were obviously characters of importance when contrasted with the axillary inflorescence, long corollas, whose petals roll together into a tube, and the long stamens with widely distant anthers of *Billardiera*. Upon such marks, then, the genus was formed; and when we afterwards ascertained that Labillardière had described the fruit of *Sollya* as a dry papery berry, we thought that character, whatever it might mean, was something worth noticing in addition.

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* So named in compliment to the French Botanist La Billardiére, who accompanied D'Entrecasteaux in his Voyage in search of La Pérouse, from 1791 to 1794.

It however turns out, from the observations of Mr. Don, that the fruit of *Sollya* is succulent, and filled with a soft pleasant pulp, and therefore he has proposed to reduce it to Billardiera (*Brit. Fl. Gard. 2nd series, fol.* 252 *note.*). But, in the first place, the character of *Sollya* is, as we have just stated, independent of the structure of the fruit; so that if the latter were really like that of *Billardiera*, still the genus *Sollya* would remain; and secondly, a succulent fruit filled with soft pulp is not what occurs in *Billardiera*, whose pericarpium indeed is of a soft spongy substance, but wholly destitute of internal pulp, the seeds lying loose in the cells. Mr. Don adds that the fruit of *Sollya* is four-celled. We have never seen the fruit more than half ripe; in that state it has two cells, each of which is occupied by two rows of seeds, set fast in a firm somewhat fleshy substance, which fills each cell, and which we presume to be what finally becomes the soft pulp that envelopes the seeds. A cross section of the fruit made at that time looks as if there were four cells, which is not the case. The genus *Sollya*, then, instead of being destroyed by the discovery of the true character of its fruit, is established on still more solid grounds than before.

Although it turns out that *Sollya* has not the thin papery pericarpium that has been assigned to it, yet we have been favoured by Mr. Cunningham, to whose numerous discoveries, and the disinterested liberality with which they are communicated to others, we have so often had occasion to bear witness, with a new genus allied to *Sollya*, in which the pericarpium is dry and leathery. This plant is called *Cheiranthera linearis* by its discoverer, because its anthers bend away from the ovary, forming themselves into a line slightly curved like the fingers of an open hand, and resembling what occurs in the *Pleurandras* of the same country. This remark of Mr. Cunningham is the more important because it tends to approximate *Pittosporeæ* to *Dilleniaceæ*, and thus to confirm the propriety of placing those plants near each other in a natural arrangement. (*See Nixus pl. p.* 10.) By means of a drawing from the living plant, and fine dried specimens with which Mr. Cunningham has supplied us, we are enabled to draw up the following character of this most interesting genus.

CHEIRANTHERA. *Cunn. Mss. Sepala* 5, acuminata. *Corolla* crateriformis, petalis 5; unguibus distantibus. *Stamina* 5 erecta, pistillo breviora; *antheris* liberis, linearibus, secundis, poris apicis dehiscentibus. *Ovarium* declinatum, biloculare, polyspermum. *Pericarpium* siccum, indehiscens, ventricosum. *Semina* plurima, pulpâ nullâ obducta.——Frutex *erectus* (Australasicus), foliis *linearibus, integris subfasciculatis*, floribus *cæruleis corymbosis erectis.*

1. C. *linearis* Cunningham. Found in dry barren tracts of country on the north of Bathurst, New South Wales, where it was observed in flower and young fruit in November 1822. Subsequently, in the same season (namely the summer of 1825), it was again detected most luxuriantly in flower in an arid scrubby region at the foot of Croker's range of mountains, on the west of Wellington Valley, in the interior of that colony.

This is one of the most beautiful plants in all the flora of New Holland.

[illegible] Pub by [illegible] 169 Piccadilly Nov. 1. 1834. S. Watts. sc.

1720

* ADÉSMIA Loudónia.

Mr. Loudon's Adesmia.

DECANDRIA *MONOGYNIA.*

Nat. ord. LEGUMINOSÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 87.)

ADESMIA. D. C. *Calyx* 5-fidus, laciniis acutis subæqualibus. *Corolla* papilionacea, vexillo juniore super alia petala complicato, carinâ apice curvo-truncatâ. *Stamina* distincta, approximata. *Legumen* compressum transversè pluri-articulatum, suturâ superiore subrectâ crassiusculâ, infer. sinuato-lobatâ, articulis 1-spermis demum secedentibus suborbiculatis. *Semina* compressa, reniformi-orbiculata.——Herbæ *australi-Americanæ.* Stipulæ *lanceolatæ.* Folia *abruptè pinnata ;* petiolo *in setulam producto.* Pediculi *axillares, 1-flori, et foliorum superiorum abortu in racemum terminalem dispositi.* De Cand. Prodr. 2. 318.

A. *Loudonia ;* fruticosa cinereo-sericea erecta ramosissima valde foliosa, foliis trijugis foliolis lineari-lanceolatis mollibus patentibus petiolo longioribus, pedunculis axillaribus solitariis calycem 5-fidum sericeum æquantibus, vexillo sericeo, leguminibus (vix maturis) triarticulatis appresso-sericeis calyce duplo longioribus, *Hooker and Arnott, Bot. Misc. vol.* 3. *p.* 193. quibusdam mutatis.

Frutex *Genistæ cujusdam sericeæ facie.* Caulis *et* folia *cinerea, sericea,* Stipulæ *angustissimæ, liberæ.* Foliola *lineari-lanceolata, mollia, subtus pallidiora.* Flores *solitarii, axillares, foliis breviores.* Calyx *sericeus 5-fidus, laciniis anterioribus longioribns.* Vexillum *sericeum, complicatum in alas incumbens.* Alæ *glabræ vexillo breviores.* Carina *paulo incurva alis pallidior et brevior, suturâ anteriore villosâ.* Stamina 10, *subæquilonga, fere hypogyna,* filamenta *libera ferè usque ad basin, membranaceo-marginata, apice subulata ;* Antheræ *parvæ, oblongæ, æquales.* Ovarium *lineare utrinque angustatum, villosum,* stylo *ascendente curvato subulato glabro.*

A Chilian shrub, our drawing of which was made from a specimen in the possession of Mr. Tate. It was originally supposed to be a new genus, and was called *Loudonia,* to which some not over-honest dealer added the specific name

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* So named from α priv. and δεσμος a union ; in allusion to the separation of the stamens by which Adesmia is known from Onobrychis and Æschynomene.

superba, for the sake of inducing people to buy it. So far is it from deserving such a name, that we should not have thought it interesting enough to be figured if it had not been for the purpose of putting an end to this fraud.

It is very like some gray Genista, and may be easily preserved in a dry frame during the winter. It flowers in June.

In habit it agrees but indifferently with the mass of the genus, but its flowers present no distinction ; and Dr. Hooker finds the fruit to be that of Adesmia.

PIRACY.

[*Extract from the* TIMES *Newspaper of Nov.* 8, 1834.]

COURT OF CHANCERY, FRIDAY, NOV. 7, 1834.

RIDGWAY *v.* HENDERSON.

Mr. Kindersley moved for an injunction to restrain the defendant from continuing the publication of two numbers of a work in which it was alleged there were piracies from the work of the plaintiff. The plaintiff had for some time past published a work, entitled the "*Botanical Register,*" which appeared monthly. It contained plates, eight in each number, representing flowers and plants, and descriptions of those plates. The defendant also published a periodical work on botany, similar in some respects to the plaintiff's work, and he had copied in two of his numbers two plates, one of which recently appeared in the plaintiff's work, and the other in a number published by the plaintiff some years ago. The plaintiff's and the defendant's works were handed up to the Lord Chancellor, who compared the plates pointed out, and was satisfied that the one was copied from the other. The letter-press was then referred to, and there also a great similarity was apparent. It was pointed out by the counsel, that where in the original work a reference had been made to a preceding number, in the words "*supra*, vol. 2," the copier had mistaken the word *supra* for the name of some author, and had so printed it.

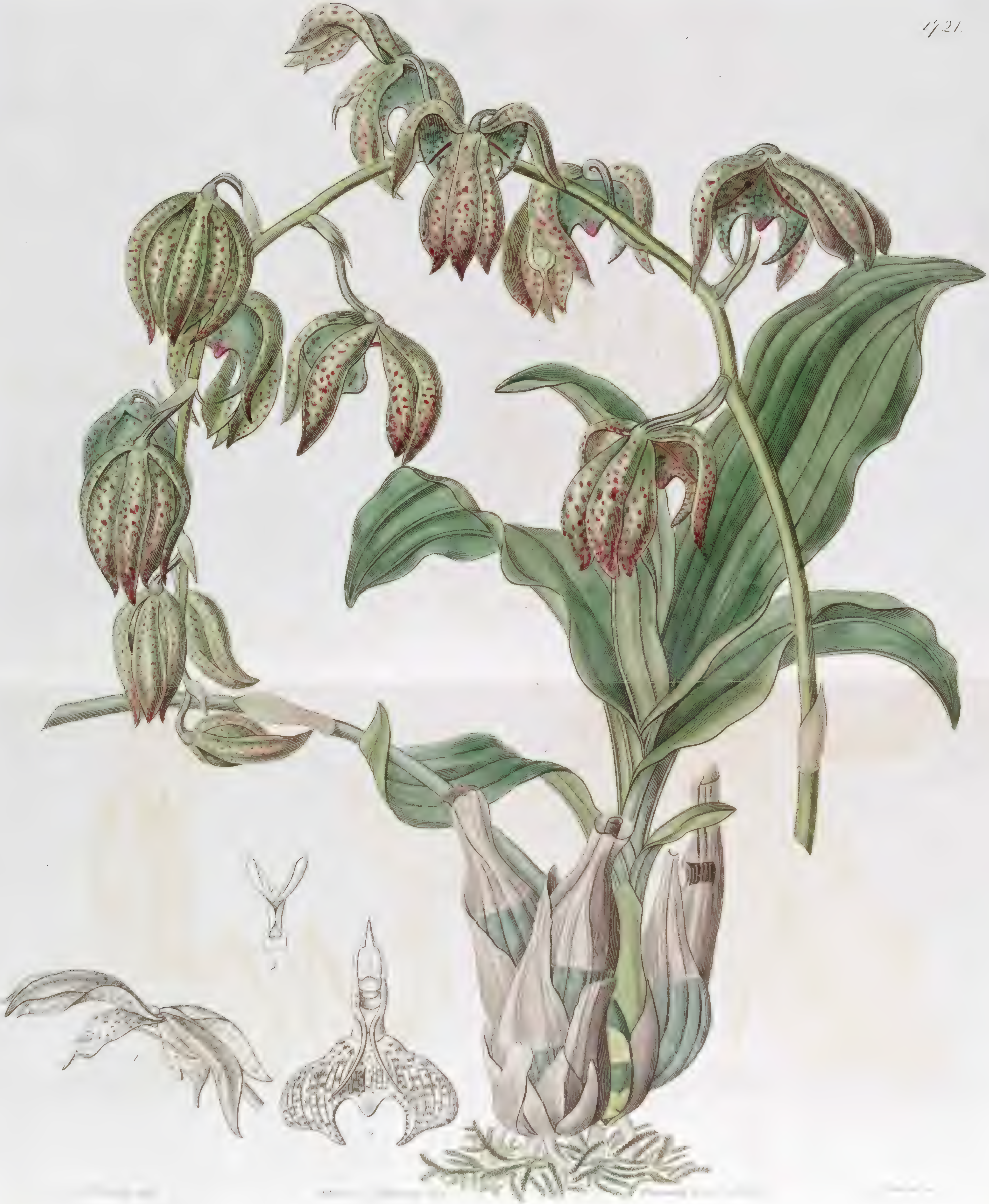
The Lord Chancellor said these were the pitfalls into which pirates often fell. There was a curious instance of a similar mistake committed in a piracy upon Dr. Johnson's Dictionary. The Doctor stated the word "curmudgeon" to be derived from the French, cœur méchant, and added as his authority for this derivation the words "unknown correspondent." The copier (Dr. Ash) mistook these last words, and gave the word curmudgeon as derived from the French cœur, unknown, méchant, correspondent. In this case his Lordship said there was enough shewn to warrant the injunction, which he ordered accordingly.

We beg to call attention to the foregoing extract. It may not be generally known to the public, although it has long been notorious to those who are conversant with the publishing business, that there exists in this metropolis, on the part of certain writers and booksellers, a system of gross literary piracy; that no sooner does valuable original matter, which has been obtained at great expense by the fair dealer, make its appearance, than it is snatched up and republished verbatim by certain unprincipled persons; in particular, that there are books called cheap periodicals, which are entirely maintained by the plunder of original works of reputation; and in short, that there are individuals who, under the name of publishing booksellers, open shops for no other purpose than that of becoming receivers of pirated goods of a particular description. If these persons committed such offences against what are termed the criminal laws of England, they would be speedily transferred to our penal settlements as felons; but as they cunningly confine their practice to acts, which, whatever may be the moral delinquency of the perpetrator, the law refers to the class of civil offences, they cannot be brought to the bar of the Old Bailey, but are amenable to higher courts, and subject to pecuniary punishment only. By the operations of depredators of this kind, we have long been seriously injured. The principal part, if not the whole of certain cheap periodicals, have been prepared by pirating the letter-press and plates of this work; that such proceedings should take place without acknowledgment is only human nature, for when will the thief acknowledge from what purse he has purloined his gains; that they should go unpunished would be to offer a premium to roguery at the expense of honesty. We have therefore at length determined to put down, if we can, the practice of literary piracy, so far as we are interested, by an appeal, first to the laws of the country, and secondly to the good feeling of the public, who we are persuaded would be as much ashamed of encouraging book-robbery by the purchase of publications supplied by it, as they would feel themselves disgraced by being seen to enter the shop of a notorious housebreaker, for the sake of the cheap bargains his plunder might enable him to offer.

To our appeal to the law, the Bench has promptly and efficiently responded by the above injunction. To our appeal to the public we are confident that a similar answer will be made, and that the high moral feeling which is the peculiar boast of this country, will be quite sufficient to put down such practices.

We therefore warn all those whom it may concern, that we shall immediately proceed in the courts of justice against all future piratical offenders, until the nuisance is abated; and that we shall take efficient means of another kind, to expose the parties to whom these observations more particularly apply, if we shall see occasion to do so.

1721.



* MYÁNTHUS cérnuus.

Drooping Fly-wort.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchideæ § Vandeæ. *(Introduction to the Natural System of Botany, p.* 262)

MYANTHUS. Lindl. Supra, fol. 1538.

M. *cernuus. Gener. and Sp. of Orch. pl. part* 3. *p.* 155.
Catasetum trifidum. *Hooker. Bot. Mag. t.* 3262.

This very curious plant is found growing upon the trunks of trees near Rio Janeiro. It seems first to have found its way to this country through Trinidad, whence it was sent to the Glasgow Botanic Garden, and figured in the Botanical Magazine.

For the beautiful drawing which we now publish, we are indebted to Miss M. A. Huntley, the daughter of the Rev. J. T. Huntley, in whose rich collection it flowered in great beauty in May last.

Like all the species with the habit of the now common Catasetums, this is very easily cultivated, provided it is rested for some months by being kept *cool* and dry, when not growing, and is vigorously forced when in full vegetation. We know not whether it is as avid of water as some of the Catasetums, but we find those plants thrive best when their roots are actually immersed in water while growing.

[In the dissections, fig. 1. represents a side view of the flower, to shew that when it is expanded the two petals are connivent with the upper sepal; fig. 2. shews the labellum jointed with the column; fig. 3. a back view of the pollen-masses with their caudicula and gland. *M. A. H.*]

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* From μυῖα a fly; the flowers look when dried very much like a fly pressed flat.

1722

* LÁLAGE ornáta.

Gay-flowering Lalage.

MONADELPHIA *DECANDRIA.*

Nat. ord. Leguminosæ. §. *Loteæ De Cand. (Introduction to the Natural System of Botany, p.* 87.)

LALAGE. Flores bracteis deciduis aridis inclusi. *Calyx* bilabiatus; labio superiore bifido, inferiore tripartito, laciniis omnibus setaceis. *Vexillum* planum, subrotundum, emarginatum. *Carina* obtusa. *Stamina* omnia connexa, decimo semilibero. *Legumen* . . . . —— Frutex *Australasicus.* Folia *alterna, simplicia, stipulata.* Flores *axillares, aurantiaco purpureoque varii.*

Lalage *ornata.*

Frutex *atroviridis;* ramis *teretibus sericeis.* Folia *lata, ovata, breve petiolata, valdè reticulata præsertim infra, supra scabriuscula, brevissime pilosa, subtus sericea.* Stipulæ *setaceæ, lineatæ, scariosæ, petioli longitudine, dorso pilosæ.* Flores *gemini, axillares, e squamis imbricatis, testaceis, aridis, deciduis erumpentes; pedicellati,* bracteolis *filiformibus viridibus villosis calycis longitudine.* Calyx *villosus, intus coloratus.* Vexillum *subrotundum, explanatum, emarginatum, intensè luteum basi maculâ sanguineâ limbo fusco-purpureo notatum.* Alæ *fusco-purpureæ, lineari-oblongæ, obtusissimæ, cum carina parallelæ.* Carina *paulò inflata, lætè purpurea, denticulata obtusa.* Stamina *basi alba, apicibus purpurea.* Antheræ *ovatæ, obtusæ.* Ovarium *villosissimum, stylo ascendente, subulato, glabro.*

A native of the south-west coast of New Holland, where its seeds were collected by Mr. Baxter. Our drawing was made in Mr. Knight's Nursery in April last.

This is one of the prettiest of the New Holland leguminous plants. Its leaves are of a deep rich green, and the colour of the flowers is a pleasing mixture of yellow, orange, purple, and crimson. It requires to be kept in a well-aired green-house, and may be multiplied by cuttings.

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* May we be permitted to apply to this gay and lively-looking plant the name of a laughing witty dame, who has been immortalized by the poetry of Horace?

Although its fruit is unknown, we have no hesitation in considering it a new and distinct genus; differing from *Hovea*, *Bossiæa*, and *Platylobium*, in the form of the upper lip of the calyx.

W. Fitch del.   Pubᵈ by J. Ridgway 169 Piccadilly Dec. 1. 1834   J. Watts sc.

* EUPATÓRIUM glandulósum.

Glandular Eupatorium.

SYNGENESIA *POLYGAMIA ÆQUALIS.*

Nat. ord. Compositæ § Eupatorieæ *Lessing. (Introduction to the Natural System of Botany, p.* 197.)

EUPATORIUM L. Capitulum pauci—s. multi—nec 4-florum. *Pappus* uniserialis non plumosus. *Corolla* limbo a tubo non distincto. *Involucrum* pauci-multiseriale. *Rachis* ebracteolata. *Achænium* 4-5-quetrum.——Arbores, frutices, *aut* herbæ, *in Europa et Asia,* sed *longe pleræque in America crescentes, pl. erecti,* ramis foliisque *oppositis, sive verticillatis, rariùs alternis ;* capitulis *violaceis v. albis, corymbosis s. corymboso-paniculatis.* Lessing.

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§ 4. *Involucrum campanulatum ; foliolis crebris subæqualibus lanceolatis acutis. Caulis sæpiùs herbaceus.* Kunth. synops. 2. 418.

E. *glandulosum ;* caule herbaceo paniculato glanduloso-hirto, foliis oppositis ovato-triangularibus subacuminatis grossè serratis supra glabris subtus pilosiusculis, corymbis terminalibus trifidis, ramis ramulisque glanduloso-hirtis, involucri foliolis acutis subciliatis exterioribus pubescentibus. *Humb. et Kunth. nov. Gen. et Sp. pl. vol.* 4. *p.* 122. *t.* 346. *Synops. l. c.*

Caulis *herbaceus, fusco-purpurascens, pilis brevibus erectis glandulosis densissime obsitus,* 3-4 *pedes altus, ramosus.* Folia *in plantâ vegetiore rhomboidea, v. triangulari-ovata, petiolata, basi cuneata integerrima, apicem versus grosse serrata, in debiliore oblonga, vix rhomboidea et breviùs petiolata ; supra glabra venis triplicibus costæformibus altiùs impressis, subtus pubescentia, petiolo glanduloso.* Flores *albi, leviter suaveolentes, ramis inflorescentiæ corymbosis glanduloso-pilosis.* Involucrum *campanulatum ;* squamis *subulatis pallidè viridibus, glandulosis, subæqualibus, appressis.* Receptaculum *planum, nudum.* Achenia *nigra, tetraquetra, lævigata, pappo simplici pauciradiato pubescente coronata.*

A native of Mexico, whence seeds were received by the Horticultural Society some years since, through the favour of the late Mr. Canning. It was found by Humboldt and Bon-

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* Pliny says that Eupator, King of Pontus, first used the Eupator herb medicinally. The Eupatorion of the Greeks was however not this genus, but the modern Agrimony.

pland upon the high table-land of Mexico, between Carpio and Gasave, at between 7 and 8000 feet of elevation.

For some time after it was raised it was kept in a pot, where it flowered abundantly in November and December in the green-house; and from plants so treated our drawing was prepared. But it has subsequently been turned into the soil of a turf-pit, which is screened from wet and the most severe of the winter's cold, and there it has grown so vigorously as scarcely to resemble its former self; on this account some discrepancy will be found between our description and figure. It now forms a thick bush three or four feet high, which flowers in October and November.

Easily increased by cuttings, which strike root as freely as those of the Dahlia.

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1724

* PYROLÍRION aúreum.

Golden Flame-lily.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDEÆ. (*Introduction to the Natural System of Botany, p.* 259.)

PYROLIRION. Herbert. — *Scapus* uniflorus, cavus. *Flos* sessilis, campanulato-infundibularis, erectus, laciniis æqualibus acutis apice recurvis, tubo cylindraceo spathæ bifidæ subæquali. *Stamina* æqualiter patentia, tubi fauce nudâ inserta; tribus longioribus. *Antheræ* biloculares. *Ovarium* 3-loculare, polyspermum, ovulis horizontalibus planis; *stigma* trifidum: laciniis linearibus apice dilatatis.

P. *aureum.* Herbert in Bot. Mag. append. p. 37.
Amaryllis peruviana. *Poir. enc. meth. suppl.* 1. 315. *Ker in Bot. Mag.* 1089.
Römer et Schult. Syst. Veg. 7. 805.
Amaryllis aurea. *Fl. Peruv. vol.* 3. *t.* 286. *a. p.* 56.

Bulbus *subrotundus, paululum turbinatus, pallidè fuscus, castaneæ parvæ magnitudine.* Folia 2na *v. solitaria (in cultâ), linearia, apice angustata, atroviridia, canaliculata, apice recurva.* Scapus *teres, cavus, uniflorus, in cultâ foliis brevior, in spontaneis longior, et robustior.* Spatha *membranacea, bifida, tubo paulò longior.* Flos *sessilis in scapo, amœnè aureus, in cultâ vix 3-pollicaris, in spontanea 4-poll.* Perianthium *infundibulare, in tubum angustatum, supra tubum subventricosum, vel quasi angustè campanulatum, sed nullo modo abruptè constrictum ut in icone Fl. Per. quæ ad siccum confecta videtur.* Sepala *lanceolata, acuta, usque ad tubum distincta, ibi conferruminata;* Petala *conformia, omnia æqualia, et æqualiter patentia.* Stamina *fauce tubi inserta,* filamentis *versus basin sensim incrassatis, sed nequaquam ex squama oriundis; tria paululum breviora; omnia æqualiter patentia.* Antheræ *lineares, versatiles.* Ovarium *oblongum, cum scapo continuum, obscurè trigonum, triloculare, polyspermum;* ovula *plana, horizontalia.* Stylus *simplex, teres;* stigmata 3, *linearia, apice dilatata, minute papillosa.*

Introduced from Peru by Richard Harrison, Esq. of Liverpool, and communicated to us in flower in April last. It is said by the authors of the Flora Peruviana to be com-

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* Literally Fire-lily, from the colour of the flowers.

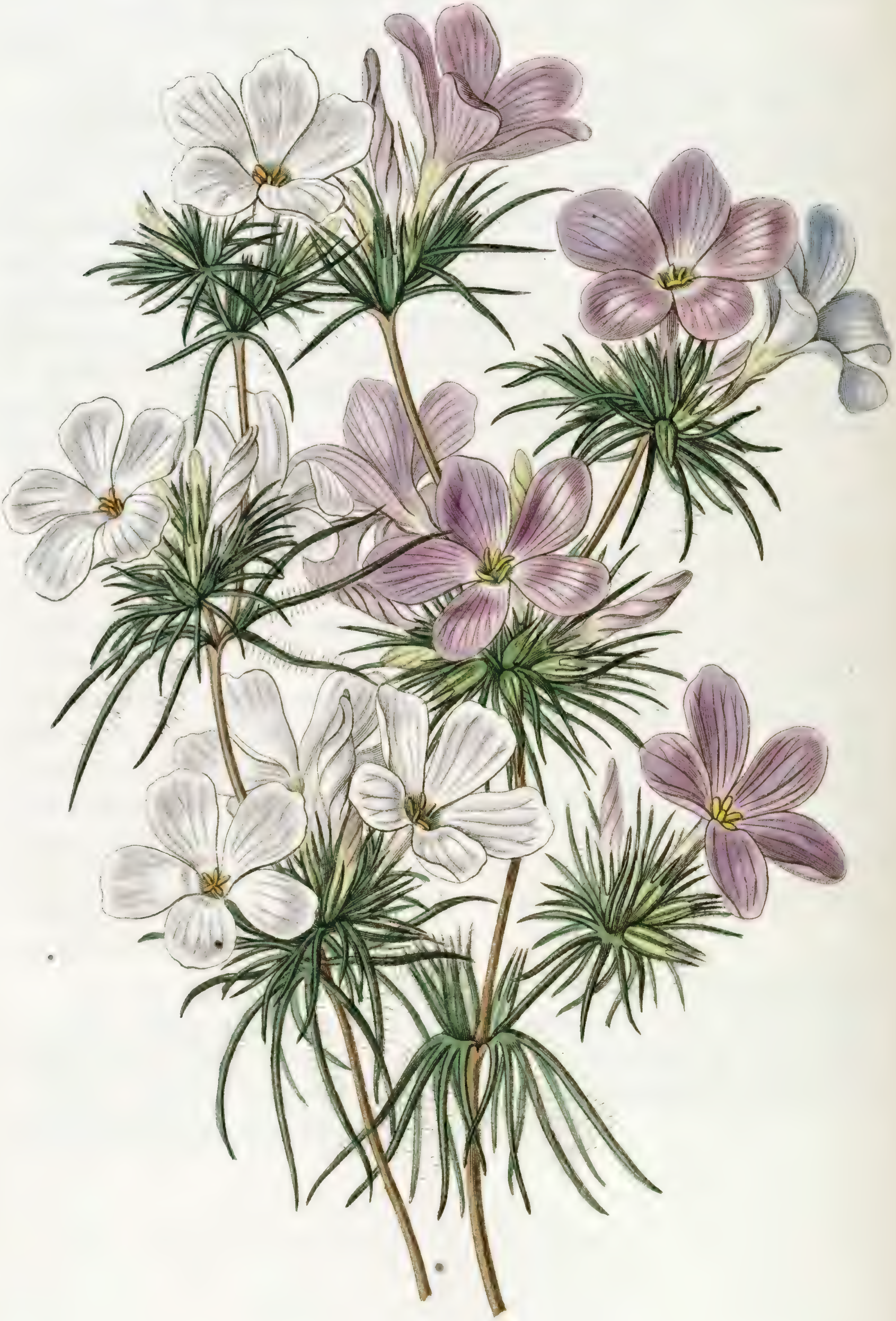
mon about Lima in fields and hedges, flowering in January and February, and that it is called *Hamancæ de Antibo*, which means *satiny Hamanca.* We have wild specimens gathered near Lima by Mr. Mathews (No. 400).

There is no doubt of its being the *Amaryllis aurea* of the Flora Peruviana, notwithstanding its smaller size, which is owing to cultivation, its longer style, which it may be supposed is more fully formed than the Perianth, and some discrepancies between it and the figure given by Ruiz and Pavon. The latter appears to have been made from a dried specimen, and is very inaccurate in many respects. In the first place, the flower is represented as stalked; certainly it is sessile; secondly, the stamens are said to arise from scales in the mouth of the tube; there are no such scales; and finally, all that concerns the form of the tube of the flower and the ovary is a mere caricature.

Whether or not the genus *Pyrolirion* is a good one, we have not the means at hand of determining to our satisfaction; as it has not any such campanulate flower as has been represented by Ruiz and Pavon, the most prominent feature in its supposed character is done away with, and then it becomes difficult to separate it from Zephyranthes; it differs, however, from that genus in its sessile flowers, which we incline to consider a character of much importance, and in the dilatation of the points of its stigma into little spoons. From *Oporanthus*, which is totally different from *Sternbergia*, it is chiefly its stigma and the reflexed points of its perianth which distinguish it, unless the seeds should prove different, as the form of the ovules renders probable.

In the mean while, until the remainder of the structure of this plant shall have been ascertained, we adopt Mr. Herbert's name, without however attempting to define the species, for we do not see what are the distinctive characters of either *P. flavum* or *flammeum.*

1725.



[illegible] Pub by J. Ridgway 169 Piccadilly Dec. 1. 1834. S. Watts sc.

* LEPTOSÍPHON densiflórus.

Thick-flowered Slender-tube.

PENTANDRIA *MONOGYNIA.*

Nat. ord. POLEMONIACEÆ. *Juss.* (*Introduction to the Natural System of Botany, p.* 219.)

LEPTOSIPHON. Supra, fol. 1710.

L. *densiflorus ;* foliis 9-11-fidis, laciniis subulatis strictis margine revolutis, corollæ tubo limbo breviore. *Bentham supra fol.* 1622 *in textu. Hort. Trans. n. s. v.* I. *t.* 18. *f.* 2.

In its general appearance before flowering, this is very like *L. androsaceus*, only it is somewhat grayer in consequence of its leaves being more glandular. When in flower it is very different; its corolla is three times as large, with broader and blunter segments, and with a short thickish tube, instead of a long and slender one. Its colours vary in the same manner from purple to blue and white, but they are less lively, and are not produced in the same abundance; and it must be considered decidedly inferior in point of beauty.

It flowers in October and November, if sown in the spring; and in April and May, if sown in the autumn; but it would hardly survive a severe winter. Its seeds are produced in very small quantity, so that, being an annual, it is likely to remain for some years a very rare plant.

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* See folio 1710.

1720

[illegible]

Pub by J. Ridgway 169 Piccadilly Dec. 1. 1834.

J. Watts. sc

* OPÚNTIA monacántha.

One-spined Opuntia.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. Cacteæ. (*Introduction to the Natural System of Botany, p.* 54.)

OPUNTIA. Tourn. Sepala numerosa, ovario adnata, foliiformia, summa plana, brevia, intima petaliformia, obovata, rosacea, expansa, tubo supra ovarium nullo. *Stamina* plurima, petalis breviora. *Stylus* cylindricus, basi constrictus. *Stigmata* plurima, erecta, crassa. *Bacca* ovata, apice umbilicata, tuberculosa, sæpè spinifera. *Embryo* subspiralis, teretiusculus. *Cotyledones* semiteretes, germinantes foliaceæ planæ crassæ. *Plumula* parva.——Frutices, trunco *demum tereti, juniore ramisq. rarissimis cylindricis, sæpiùs plus minus compressis, articulatis,* articulis *ovatis v. oblongis fasciculos* aculeorum *aut* setarum *ordine quincunciali seu spirali dispositos gerentibus.* Folia *sediformia, caducissima, sub quoque fasciculo juniore.* Flores *e fasciculis aut marginibus articulorum orti, flavi, aut rubentes.* Stamina *tactu subirritabilia.* De Cand. prodr. 3. 471.

O. *monacantha ;* articulis obovato-oblongis, aculeis solitariis subulatis validis. *De Cand. l. c.*

Cactus monacanthus. *Willd. enum. suppl.*

We were favoured with a fine plant of this Cactus by the Countess of Guildford in May last. It is said to be a native of the hotter parts of South America.

With regard to the species, or supposed species of this difficult genus, we cannot do better than quote the words of Professor De Candolle, who has long, carefully and skilfully cultivated them.

"With regard to Nopals with yellow flowers, although they are the most common in the gardens, the study of their species is perhaps more complicated than that of any other section. It appears pretty well made out that M. Lamarck and myself have united as varieties under the name of *Cactus opuntia*, some species which are truly distinct; but I also think that since that time Botanists have gone too far in describing as species a heap of varieties probably originated in cultivation, and the flowers of which are still unknown. The descriptions of Opuntias made from wild plants correspond so ill with those made in gardens, that it is almost impossible to identify them, considering the negligent manner in which travellers have described them. Thierry de Menonville, who to be sure was an indifferent botanist, but who gave his entire attention to the study of Nopals, says expressly, 'that if Linnæus justly complained that the species of Cacti with angular stems were inexactly described, we may be sure that the description of Opuntias is still more incomplete, both with regard to number and form. There exist in Mexico thirty species, very different from all that have been described; and I have had neither the time nor the liberty to describe them.'

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* Said to be named from the country of the ancient *Opuntians*, where it grew wild. These people were located upon the site of the present Tolandi, in the Morea, where one species is still found.

"The principal characters hitherto employed are the form of the joints and the spines. The first of these characters is to be depended upon only when the mean of all the joints of an individual is taken into account, for there are few Nopals of any size, the same individual of which will not furnish joints of different forms. As to the spines, their number is often variable on the same individual, and all travellers say the same species may have them or be without them; their length is not more constant, and varies within such extensive limits, according to the mode of culture, that we can scarcely give it any importance. The garden Nopals, in general, have them less numerous and smaller than the wild plants. The colour of the spines seems somewhat less variable, but as yet we have upon this subject nothing but garden observations, made upon individuals propagated by cuttings of each other, and we do not know whether these characters come thus from seeds. I therefore consider the principal part of the Nopals with yellow flowers as of doubtful species."

1727

Miss Drake del. Pub by J Ridgway 169 Piccadilly Dec 1834 S. Watts sc

1727

* COLUTÉA nepalénsis.

Nepal Bladder-senna.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ § LOTEÆ *D. C.* (*Introduction to the Natural System of Botany, p.* 87.)

COLUTEA L. *Calyx* 5-dentatus. *Vexillum* explanatum, bicallosum, carinâ obtusâ majus. *Stamina* diadelpha (9 et 1.) *Stigma* laterale sub apice styli uncinato. *Stylus* posticè longitudinaliter barbatus. *Legumen* stipitatum cymbiformi-ovatum inflatum scariosum.——Frutices *inermes.* Stipulæ *parvæ, caulinæ.* Folia *impari-pinnata.* Racemi *axillares, pauciflori, foliis paulo breviores.* De Cand. Prodr. 2. 270.

C. *nepalensis;* foliolis subrotundo-ellipticis retusis, racemis paucifloris nutantibus, callis vexilli papilliformibus, leguminibus coriaceis pubescentibus. *Spreng. cur. post. p.* 278.
C. nepalensis. *Sims in Bot. Mag. t.* 2622.

This hardy shrub was introduced to our gardens from Nipal some years since, but it has as yet been little cultivated. In point of appearance it is when young far more handsome than the common Bladder Sennas. Its leaflets are rounder and more shining, and its flowers of a lighter and rather brighter tint, with a more graceful arrangement on the branches; it is moreover a smaller and neater-looking species.

From the character above quoted from Sprengel, the pods would seem to be materially different from those of the common species; but we have never seen them. No specimens were distributed under Dr. Wallich's direction; nor indeed are we aware of any wild specimens having been seen in herbaria.

Flowers in June; increased by layers.

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* The κολουτέα of Theophrastus is supposed to have been the *Colutea cruenta* of modern Botanists.

1728.

Miss Drake del.   Pub. by J. Ridgway 169 Piccadilly   Jan 1 1835.   J. Watts sc.

* BANKSIA speciósa.

Shewy Banksia.

TETRANDRIA *MONOGYNIA.*

Nat. ord. Proteaceæ. (*Introduction to the Natural System of Botany, p.* 68.)

BANKSIA. Supra, vol. 8, *fol.* 688.

1. Stylus perianthio longior hinc unguibus citiùs solutis arcuatim exsertus. Stigma laminis tardiùs dehiscentibus inclusum. Amentum floriferum cylindraceum, fructiferum folliculis transversis pluribus. Banksiæ veræ. *R. Brown Prodr.* 247.

B. *speciosa ;* foliis linearibus pinnatifidis: lobis triangulari-semiovatis mucronatis subtùs niveis obsoletè nervosis, perianthii laminis lanatis, stylo pubescente, folliculis tomentosis. *R. Brown in Linn. Trans. v.* 10. *p.* 210. *prodr.* 252. *Graham in Edinb. Phil. Journ. Dec.* 1830. *Bot. Mag. t.* 3052.

A rare species, which, as far as we know, has only flowered three times in this country; first, in the Botanic Garden at Edinburgh, next in the garden of his Grace the Duke of Northumberland, to whom we are indebted for an opportunity of figuring it, and, lastly, in the collection of Henry Berens, Esq. at Sidcup.

It is chiefly for its beautiful foliage and graceful habit that it is valued, its flowers having no strikingly brilliant colours to recommend them.

We found neither the whiteness of the under side of the leaves, nor the faintness of the veins, which are supposed to be characteristic of the species; but these were probably only accidental deviations from what is usual.

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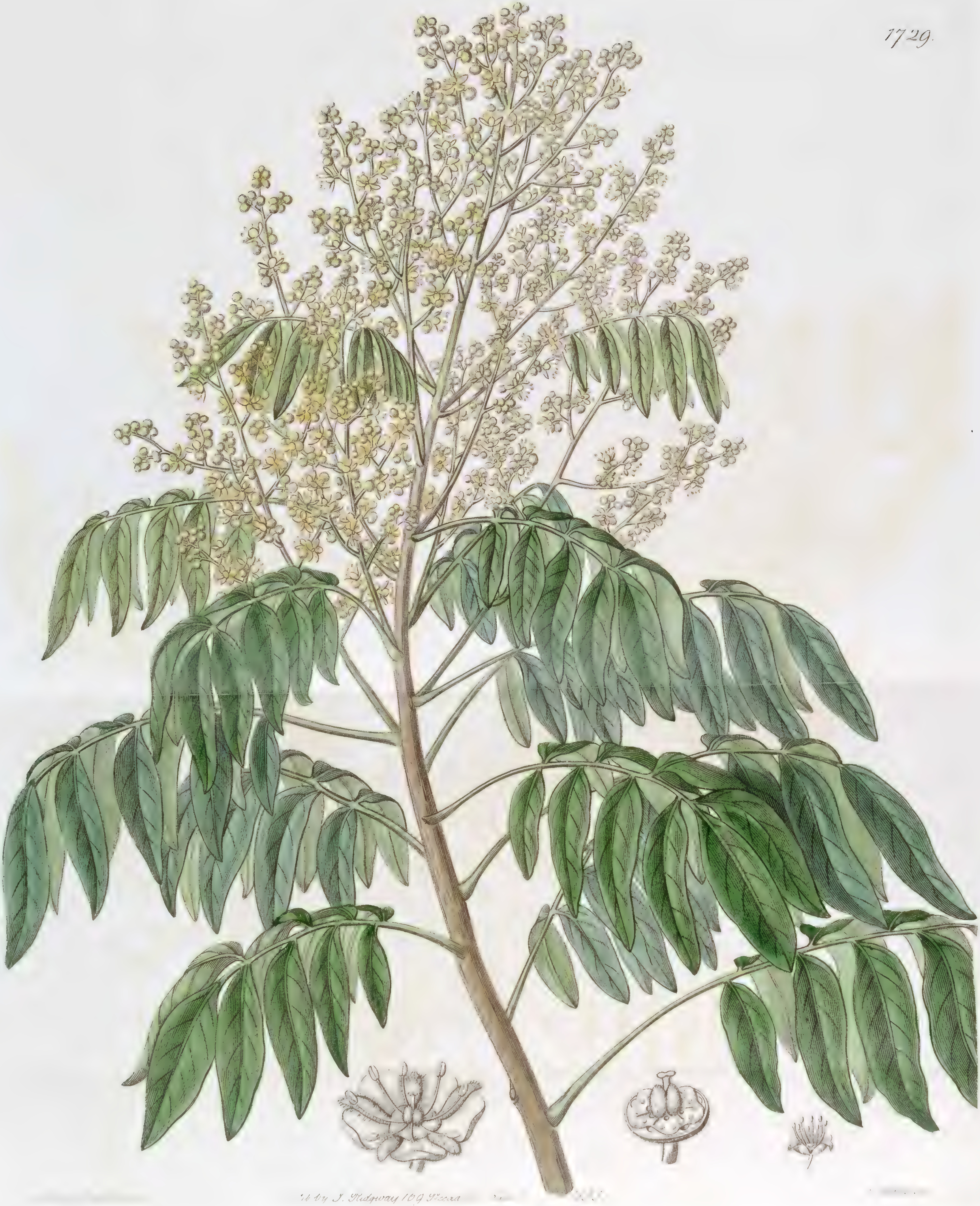
* It is almost superfluous to say that this fine genus was named in honour of the late Sir Joseph Banks, the enlightened traveller, and the steady friend of science, whose memory would deserve to be immortalized, if it were only for his protection of such men as Dryander and Brown.

Dr. Brown states it to be a native of Lewin's Land, on the south coast of New Holland, in rocky places near the sea-coast.

1729.



b by J. Ridgway 169 Piccad

* EUPHÓRIA Lóngan.

The Longan Tree.

POLYGAMIA *MONŒCIA.*

Nat. ord. Sapindaceæ. (*Introduction to the Natural System of Botany, p.* 116.)

EUPHORIA. *Supra, vol.* 13, *fol.* 1059.

E. *Longan;* foliolis subquadrijugis cum impare ovali-lanceolatis obtusis opacis, venis subtus elevatis pinnatis, floribus paniculatis, fructibus inermibus verrucosis.

Euphoria Longana. *Lamarck Dict.* 3. 574. *De Cand. Prodr.* 1. 611.

Dimocarpus Longan. *Lour. Cochinch.* 1. 288. *Hort. Trans. vol.* 2. *t.* 28.*

Nephelium Longanum. *Cambess. Wight et Arnott. Fl. Penins. Ind. Or.* 1. 113.

Scytalia Longan. *Roxb. Fl. Ind.* 2. 270.

The Litchi and the Longan are two of the finest fruits that the Chinese possess. Both are occasionally sent to England as presents, but they are never seen in the shops. They have, when imported, a brown shell, which in the former is prickly, in the latter simply warted, and contain a single seed surrounded by a succulent aril, having much the taste of an excellent raisin, only rather more vinous.

This species seldom flowers, and has produced its fruit in only one place in this country: namely, at Mr. John

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* Literally *well-bearing*, in allusion to the value of its fruit, and the abundance in which it is produced.

Knight's, of Lee Castle, near Kidderminster, in the year 1816. Specimens were sent to the Horticultural Society, in whose Transactions the following account was soon after published, with a figure of the fruit:

"Two species of *Dimocarpus* have been introduced into our gardens: the *D. Litchi*, and *D. Longan*. They are both natives of the southern part of China, where they are known as the *Li-tchi* and the *Long-yen*, and much cultivated; they have also been transplanted thence to different places in the East Indies. The present is believed to be the only instance of the fruit having been brought to maturity, in Europe; and persons who were well acquainted with it in its native places of growth, pronounced these specimens quite as good as those grown within or near the tropics. The Li-tchi is most esteemed by Europeans: the Chinese prefer the Long-yen, considering it to possess medicinal properties as a stomachic. Both species are trees, and many varieties of each are cultivated in China, differing in the quality of the flesh, the time of ripening, and in the shape of the fruit, some being nearly globular, some heart-shaped, and others oblong, but not varying much in size. The Li-tchi fruits are, however, generally the largest, and are of a red colour, when ripe, excepting in one variety, in which the coat remains green. The small scutiform processes, on the coat of the fruit, in the Li-tchi, are more sharp, or pointed, than those of the Long-yen. The fruit of the latter is uniformly of a light brown colour. In both species the pulp is surrounded with a tough, thin, leathery coat; it is a colourless semi-transparent substance, in the centre of which is a dark brown seed, of different sizes, in the different varieties. The flavour of the pulp is slightly sweet, subacid, and particularly pleasant to the taste, in a warm climate. The fruit of the Li-tchi, dried either in the sun, or by fire-heat, is frequently brought to England by the ships from China. In this state, the pulp is shrivelled and reduced, within the coat or shell, to half its usual size, and has a rich and sweet taste, if it has been well preserved."

A very tender stove plant, flowering in May. Our drawing was made in the hot-house of his Grace the Duke of Northumberland, at Syon, in 1833.

Miss Drake del. [illegible] 169 Piccadilly Jan. 1 1835. J. Watts sc.

1730

* ACANTHOPHÍPPIUM bícolor.

Two-coloured Barrel-Orchis.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchideæ § Vandeæ. *Lindl.* (*Introduction to the Natural System of Botany, p.* 262.)

ACANTHOPHIPPIUM. Blume. Perianthium ventricosum. *Sepala* agglutinata, lateralia ungui columnæ adnata, dorsale cum petalis spatulatis fornicato. *Labellum* unguiculatum, cum basi longè productâ columnæ articulatum, limbo trilobo indiviso complicato, disco lamellato. *Anthera* carnosa, bilocularis. *Pollinia* 8, inæqualia, sessilia.——Herba *terrestris, subcaulescens.* Caulis *infernè bulbosus, vaginatus.* Folia *oblongo-lanceolata, plicata.* Pedunculus *vaginatus pauciflorus.* Flores *speciosi.* Lindl. Gen. et Sp. Orch. 177.

A. *bicolor;* petalis oblongo-lanceolatis acutiusculis, labelli lobis lateralibus rotundatis, perianthio ovato.

Planta *terrestris;* pseudobulbis *oblongo-ovatis, corrugatis, atroviridibus, reliquiis foliorum vestitis, paulo in collum angustatis.* Folia 2-3, *oblongo-lanceolata, utrinque acuta, plicata, erecta, basi angustata, sed petiolo nullo.* Pedunculus *radicalis;* squamis *ovatis, concavis, brunneis, magnis, vaginatus,* 2-4-*florus.* Perianthium *carnosum, unciam et dimidiam longum, ovatum, vel subconicum, flavum, apice patulum sanguineum.* Sepala *omnia conglutinata, oblonga, obtusa, lateralia basi obliqua, basi longè productæ columnæ inserta.* Petala *æquilonga, apice minùs maculata, lineari-oblonga, acuta.* Labellum *cum pedè longâ columnæ unguem efficiente articulatum, inflexum, complicatum, trilobum; lobis lateralibus rotundatis intermediâ magis luteâ et carnosâ, asperiusculâ; lamellis disci 2 tantum, concavis, lineâ elevatâ sejunctis.* Columna *semiteres, acuta;* stigmate *marginato;* clinandrio *immarginato proclivi.* Pollinia 8, *geminata, in glandulam anticè emarginatam sessilia.*

A highly curious and extremely rare epiphyte, found in Ceylon by Mr. Watson, the Superintendant of the Government Garden at Peradenia, and transmitted by him to the Horticultural Society. It has very much the habit of a Geodorum, only it has pseudo-bulbs, instead of tubers.

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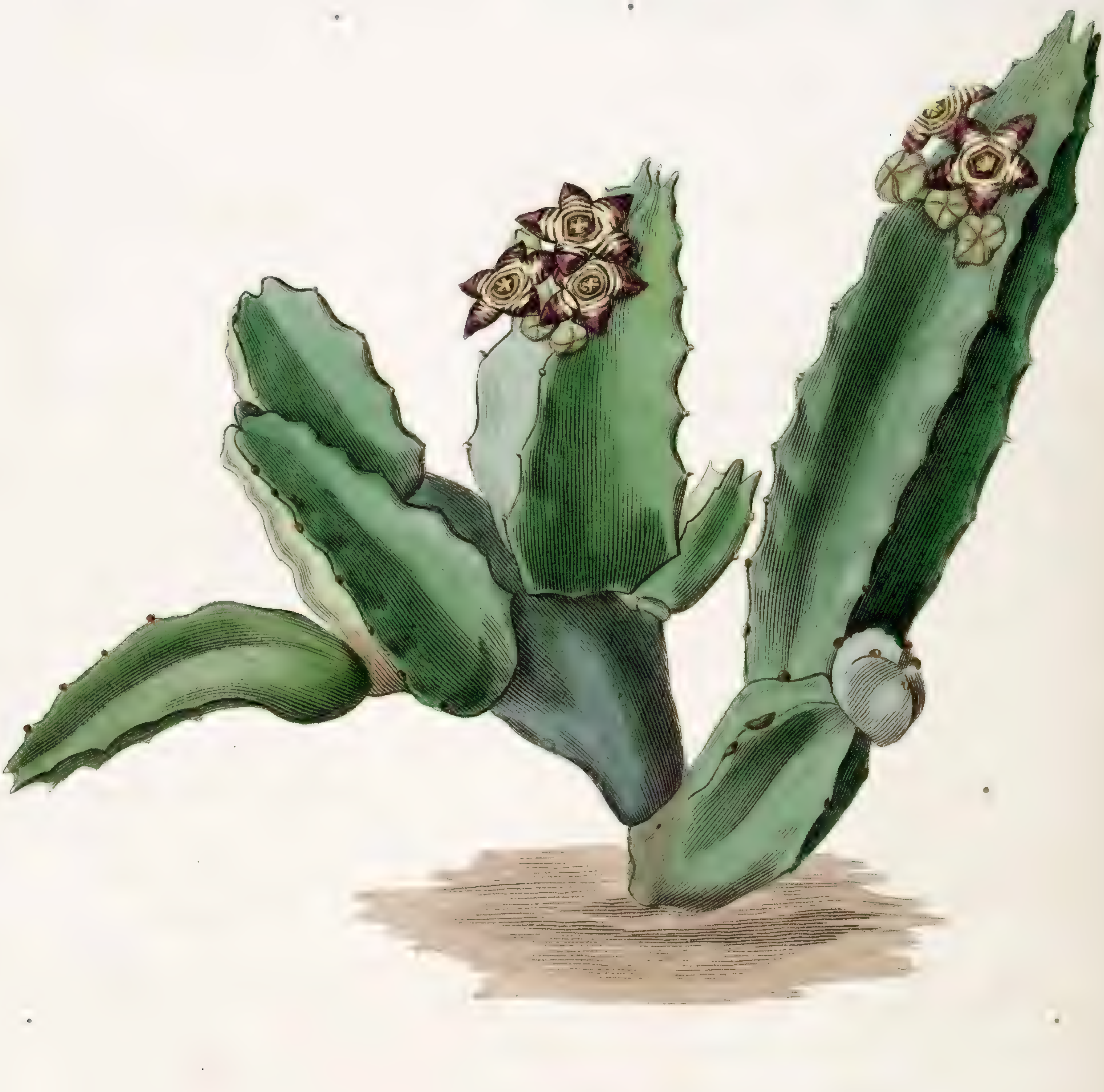
* A name, the meaning of which is not explained by its author, Dr. Blume.

It flowers in June, and succeeds extremely well in a mixture of peat and sand, mixed with broken pots, provided it has a great deal of heat and moisture during the growing season, and a few months rest annually in a cool and dry atmosphere.

Of the only two other known species, one is a native of Java, the other of Sylhet. Neither has yet been imported.



[illegible] Pub. by J. Ridgway, 169 Piccadilly Jan. 1 1835. S. Watts sc.

1731

* STAPÉLIA Gussoneána.

Sicilian Stapelia.

PENTANDRIA *DIGYNIA.*

Nat. ord. ASCLEPIADEÆ. (*Introduction to the Natural System of Botany, p.* 210.)

STAPELIA. Supra, vol. 9, *fol.* 755.

S. *Gussoneana ;* caulibus cinereo-glaucis crassis tetraquetris faciebus concavis, angulis dentatis inermibus, floribus fasciculatis parvis, corollis glabris.
S. Gussoneana. *Jacquin.*

One of the greatest geographical curiosities we know. The genus Stapelia, extensive as it is in species, does not possess one other which is not found in South Africa ; so that this, which is a native of rocks on the south of Sicily, is cut off, as far as we know, from all the remainder of the genus, by the whole continent of Africa. Are we to infer from this that Central Africa contains Stapelias in its unknown Flora ? or is this a northern form, having no connection with the Hottentot races except in general structure ? Perhaps we shall be justified in assuming the former to be the more probable theory, if we take into consideration that Forskahl found a plant without flower, which he took for a Stapelia, in Arabia ; and that Carallumas, which are altogether Stapelias in habit, are found in Continental India.

The species was first made known by Baron von Jacquin at the meeting of Naturalists at Vienna in 1832, and we presume that he has since published it somewhere under the name he then gave it. Mr. Bentham brought it to England with him, and gave it to the Garden of the Horticultural Society, where our drawing was made last October.

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* See folio 755.

Unfortunately we neglected to make any notes upon the structure of its flowers when they were before us, and we are therefore unable to describe them. When we shewed the plant to the late Mr. Haworth, he pronounced it to be entirely different from any which he had ever seen.

Miss Drake del. Pub. by J. Ridgway 169 Piccadilly Dec. 1. 1835 S. Watts sc.

* MESEMBRYÁNTHEMUM rubrocínctum.

Red-edged Fig Marigold.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. Ficoideæ. (*Introduction to the Natural System of Botany, p.* 160.)

MESEMBRYANTHEMUM. Supra, vol. 3, *fol.* 260.

§ 30. Conferta.

Caules fruticosi, ramis confertis ascendentibus. Folia opposita, subconnata conferta triquetra acuta, angulis lævibus. Flores pedunculati solitarii aut ternati speciosi sole expansi rubicundi aut pallidè rosei. *De C. prodr. v.* 3. 436.

M. *rubrocinctum;* caulibus humilibus ascendentibus ramosissimis, floriferis unifloris, foliis læte viridibus rubrocinctis acinaciformibus lævibus, bracteis connatis, floribus maximis.

M. rubrocinctum. *Haworth.*

A species which may perhaps be considered the finest of this very extensive genus. It is nearly related to *M. spectabile,* from which it differs in its larger flowers and leaves, and in its connate bracts.

It is a native of the Cape of Good Hope, and is said to have been described by the late Mr. Haworth in some of his papers, but we have not been so fortunate as to light upon the place.

For our specimen we are indebted to the Hon. W. F. Strangways, in whose garden in Dorsetshire it blows in the greatest profusion upon an old wall.

Independently of its extraordinary beauty, this has the great merit of being able to resist as much cold as a *Pelar-*

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* From μεσημβρια noontide, and ανθεω to flower; in allusion to the time of the day at which its blossoms usually expand.

gonium, and consequently of being capable of enduring a very mild winter in this climate. Even in our most severe seasons, it is only necessary to protect it with a few layers of matting from the wet, and no fear need be entertained of preserving it.

Our drawing was made in May last.

Miss Drake del.   Pub. by J. Ridgway 169 Piccadilly [illegible]   J. Watts sc.

1733

* SYRÍNGA Josikæa.

Lady Josika's Lilac.

DIANDRIA *MONOGYNIA.*

Nat. ord. Oleaceæ. (*Introduction to the Natural System of Botany, p.* 224.)

SYRINGA. L. *Calyx* brevè 5-dentatus. *Corolla* subhypocrateriformis limbi partitionibus 4, concavis. *Stigma* bifidum. *Capsula* ovato-compressa, acuminata, bilocularis, loculicido-bivalvis, dissepimento medio longitudinaliter secedente, utrinque in valvula persistente (folliculorum coadunatorum fabrica repetita); *semina* oblonga, deplana, circumalata. *Reichenb. Fl. excurs. p.* 432.

S. *Josikœa ;* foliis ovalibus acuminatis subtus pallidis, floribus subinodoris.

S. Josikæa; *Jacq. in Botan. Zeitung.* 1831. *t.* 67. 399. *Reichenb. pl. crit. viii.* 32. *No.* 1049. *t.* 780. *Fl. Germ. excurs. p.* 432. *Bot. Mag. t.* 3278.

The addition to our gardens of a new species of Lilac, is an event of no little importance to all lovers of fine flowers and sweet odours. We are therefore happy to lay before our readers a figure of a plant which will probably be the most beautiful of the genus, on account of the deep colour of its blossoms. It is not indeed so fragrant as the Persian species, but this will be considered an advantage by those who find the delicious fragance of the common Lilac too oppressive to be borne except in the open air.

S. Josikœa flowers in the month of May, and resembles the old species very much in its general appearance; but its leaves are a remarkably dark green, nearly white beneath, and its flowers a peculiar deep stone-blue; so that it has been compared to a dark-flowered lilac placed on the stem of a Tacamahac poplar.

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* A poetical name. Syrinx was an Arcadian nymph, who was changed into a reed, from which the first flute was made. This genus is easily applied to the same purposes; and the Turks fabricate from its vigorous shoots their finest pipe sticks.

It was introduced to this country by the Messrs. Booths, of Flotbeck, near Hamburgh, to whom, as the first nursery and seedsmen in Germany, we recommend all those who wish to procure the productions of the countries east of the Rhine. Our drawing was made in the garden of the Horticultural Society.

S. Josikæa is a native of Transylvania, in the county of Klausenburg, near Sebes, in stony places, upon the territory of the Countess Rosalie Josika, born Czaky, after whom it has been named. It was first made known to Botanists by Baron von Jacquin, at the meeting of Naturalists at Hamburgh in 1830; and was afterwards particularly mentioned in the Botanische Zeitung for 1831, Vol. I. p. 399, where we find the following interesting note concerning our common Syringa vulgaris:

"Concerning S. vulgaris, which is marked in the *Flora Germanica* as if it were of foreign origin, and which is said in all books to be a native of Persia, although common in hedges and gardens, we may observe, whatever specimens may have been brought from Persia to Germany and the rest of Europe, that this species is undoubtedly wild in one part of the district comprehended in the German Flora. This is in Hungary, where it ornaments with its flowers, according to Dr. Heuffel, the inaccessible lime-stone rocks of the valley of Cserna, Mount Domaglett, and all the rocks along the Danube, at the military boundaries of Moldavia, Szaszka, Csiklova, and Krassova."

We may add, that the Himalaya Lilac (*S. Emodi*) differs but little from this except in the flatness of its leaves and the shallowness of its veins.

1734.

Miss Drake. del. Pub by J. Ridgway 169 Piccadilly Jan. 1. 1835. S. Watts.

1734

* COLLÍNSIA bicolor.

Two-coloured Collinsia.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. SCROPHULARINEÆ. (*Introduction to the Natural System of Botany, p.* 228.)

COLLINSIA. Supra, vol. 13, *fol.* 1082.

C. *bicolor ;* foliis ovato-lanceolatis basi subcordatis, laciniis calycinis ovatis. *Bentham in Hort. Trans. n. s. vol.* 1. *p.* 480.

Annua. Caulis *erectus, ramosus, pedalis, v. paulò altior, levissimè pubescens.* Folia *glabra, ovata, subsessilia, serrata ; suprema minora integerrima.* Flores *verticillatim spicati, speciosi.* Calyx *glanduloso-pubescens ;* tubo *pallido ;* laciniis *viridibus, ovatis acutis.* Corolla *omninò ut in* C. grandiflora *sed duplo major, et colore diverso ; labium superius cum tubo album, inferius roseo-purpureum.*

A new and handsome hardy annual, introduced by the Horticultural Society from California in 1833. Nothing is known of the circumstances under which it is found wild, nor is it possible to tell, in the absence of native specimens, how far the cultivated plant equals the wild appearance ; but, as far as can be ascertained at present, it thrives perfectly in common black garden mould ; it has not been tried either in loam or peat.

It grows from a foot to a foot and half high, and produces its pretty two-coloured blossoms most copiously in May and June, when it has been sown the previous autumn ; if sown in May, it will flower in August and September.

A very few plants only have yet been raised ; so that it is still very rare, although they seeded in some abundance.

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* See folio 1082.

Miss Drake. del.

Pub by J. Ridgway 169 Piccadilly Feb. 1 1835.

1735

* MONACHÁNTHUS díscolor.

= C[illegible] d.

Dingy Monk-flower.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ, § VANDEÆ, *Lindl.* (*Introduction to the Natural System of Botany, p.* 262.)

MONACHANTHUS. Perianthium explanatum. *Sepala* et *petala* deorsùm versa. *Labellum* posticum, carnosum, indivisum, ventricosum, sepalis multo majus. *Columna* brevis, crassa, mutica. *Anthera* et *Pollinia* Cataseti. —Epiphyta *Cataseti* habitu. *Genera et Sp. Orch.* 157.

M. *discolor;* racemo laxo multifloro, labello hemispherico marginibus planis medio fimbriatis.

Epiphyta, pseudobulbis 3-*poll. longis, oblongis, teretibus, leviter corrugatis, cicatricibus foliorum annulatis.* Folia *oblongo-lanceolata, plicata.* Racemus *cylindraceus, laxus, multiflorus, spithamam longus.* Sepala *linearia, obtusa, reflexa, viridi-fusca.* Petala *recta, conformia, fusco-purpurea.* Labellum *posticum, cucullatum, acutum, carnosum, viridi-purpureum, intus viridi-luteum, margine reflexo medio fimbriato.* Columna *brevis, viridi-lutea, mutica, stigmatis excavati margine inferiore convexo prominente, lateralibus deorsum productis.*

A very rare plant in Demerara, whence Mr. Bateman received a single bulb by his collector, Mr. Colley. We are enabled to figure it by means of a specimen from the collection at Knypersley, which we received in November last.

Although not handsome, this is an interesting plant, as confirming the genus *Monachanthus*, which before consisted of but a single species found in the Brazils, of which we shall give a figure in some future number of this work. It differs from *M. viridis* in the number of the flowers, in their colour, and especially in the form of the lip, which looks more like an old rusty iron scull-cap, than any thing else we can compare it to.

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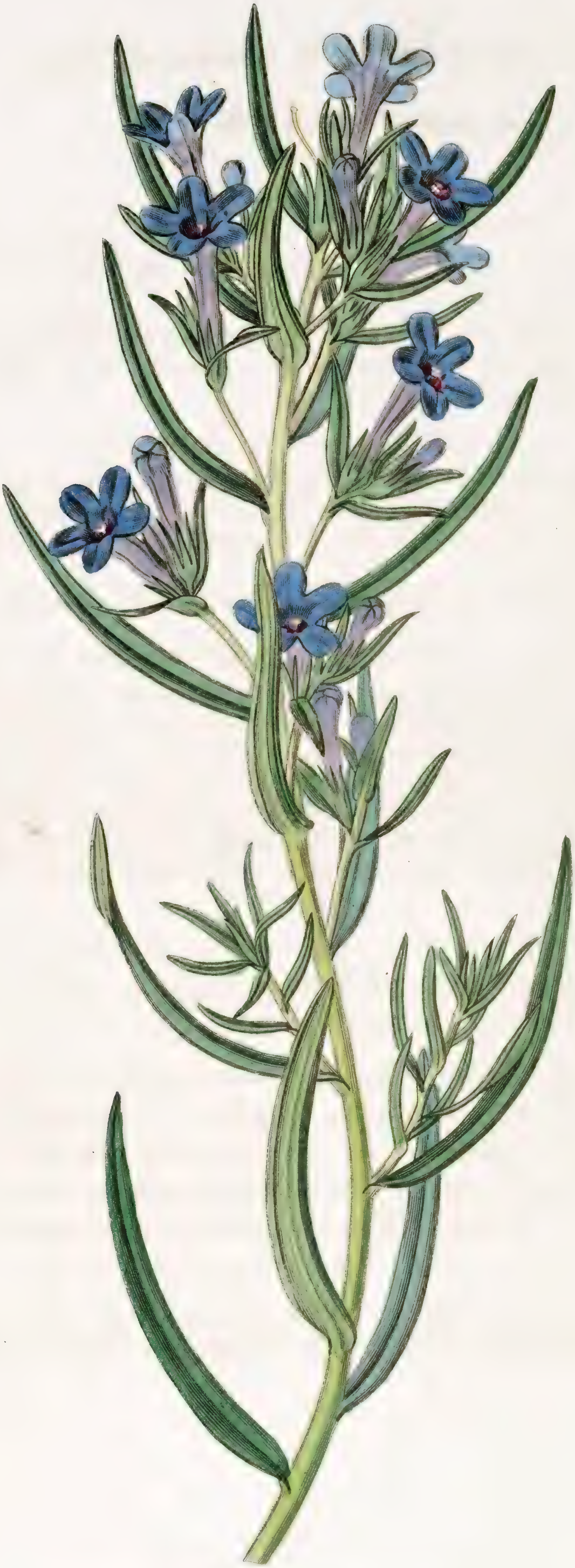
* *Monks flower,* which is the meaning of this generic name, will not be considered unapplicable, when you compare the labellum of the original species to a cowl.

1736.



rake. del. Pub by J. Ridgway 169 Piccadilly Feb. 1. 1835. J. Watts sc.

* LITHOSPÉRMUM rosmarinifólium.

Rosemary-leaved Gromwell.

PENTANDRIA *MONOGYNIA.*

Nat. ord. BORAGINEÆ *Juss.* (*Introduction to the Natural System of Botany*, p. 241.)

LITHOSPERMUM L. *Calyx* 5-partitus. *Corolla* infundibularis, pervia, fauce 5-gibboso-impressâ, plicatâ aut lævi. *Nuculæ* osseæ basi truncatæ. *Reichenb. fl. excurs.* 1. 336.

§ 3. *Margarospermum.* Faux lævis, nuculæ lævissimæ. *Rchb.*

L. *rosmarinifolium ;* fruticulosum, foliis linearibus demum revolutis subtus albis utrinque subtiliter pilosis, corollis subhypocrateriformibus pilosis, antheris styloque inclusis.

L. rosmarinifolium *Tenore fl. Neap. prodr. suppl. II. p.* 65. *Synopsis* p. 33. *non Rchb.*

L. graminifolium, *Römer et Schultes syst. veg. vol.* 4. p. 47? *non Viv.*

Caulis *suffruticosus, diffusus, palmaris ad bipedalem, pilis appressis subtilibus pubescens.* Folia *linearia v. lineari-lanceolata, margine revoluta, suprà subpilosa, infrà pilis pallidis siccatione albis densè vestita.* Gyri *florum axillares, pedunculati, pauciflori, foliis multò breviores.* Calyx *5-partitus, corollâ triplò brevior ; laciniis subulatis appresso-pilosis.* Corolla *inter hypocrateriformem et infundibularem, tubo pallide purpurascente apice piloso basi glabro ; limbo intensè cœruleo plano, extus densè piloso.* Antheræ *et* stylus *inclusa.*

A native of the south of Italy ; it was found by Tenore growing on the limestone rocks of the island of Capri.

Our drawing was made from a fine plant flourishing in the rich collection of Mrs. Marryat, to whom the seeds had been brought by Mrs. Pallisser. It is a beautiful and highly interesting species, and one of the best adapted for rockwork in a mild climate. It appears to require no particular care in the management, except to be protected from wet in winter. When we saw it in flower in September last, it was not above a foot high, but we understand it has since increased very much in size as well as in beauty. The blue of the flowers is of the most intense and brilliant tint. We presume it may be propagated by cuttings.

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* Literally *Stoneseed ;* a most appropriate name, the little nuts, or seeds as they used to be called, being extremely hard, and having as smooth a surface as a polished pebble.

We cannot in this place undertake to unravel all the synonyms of this plant, about which there is very great confusion in systematic writers. All we can answer for are the following points.

1. It is the *L. rosmarinifolium* of Tenore, as we have ascertained by the examination of authentic specimens. It is probably, therefore, the *L. graminifolium* of Römer and Schultes.

2. It is not *L. graminifolium* of Viviani, as we have also ascertained by consulting authentic specimens from Viviani himself; that species has the truly funnel-shaped, or obconical corolla of a Pulmonaria, without a trace of hairs on its outside; its anthers are as long as the limb of the corolla; and the style is much longer than either.

3. Neither is it the *L. rosmarinifolium* of Reichenbach, who seems to have described some variety of L. graminifolium, as he himself suspects.

4. *L. fruticosum*, to which it is also referred in Römer and Schultes, has its leaves covered with sharp, callous, spreading bristles, and the corolla smooth on the outside, besides having a totally different habit.

We may add that this last, and *L. oleæfolium* of the Pyrenees would be great acquisitions to our Gardens.

Miss Drake del. Pub. by J. Ridgway 169 Picca Feb. 1. 1835. J. Watts sc.

1737

*CHELÓNE centránthifólia.

Valerian-leaved Chelone.

DIDYNAMIA *GYMNOSPERMIA.*

Nat. ord. SCROPHULARINEÆ *Juss.* (*Introduction to the Natural System of Botany, p.* 228.)

CHELONE.—Supra, vol. 2. *fol.* 175.

C. *centranthifolia;* glaberrima, glauca, foliis ovato-lanceolatis integerrimis basi cordato-amplexicaulibus, paniculâ elongatâ, corollis tubulosis pendulis glabris fauce nudis, filamento quinto imberbi. *Bentham in Hort. Trans. vol.* 1, *n. s. p.*

Perennis. Caulis 3-7-*pedalis, teres, glaucus, rubro maculatus.* Folia *glauca ovato-lanceolata, cordata, obtusa, glabra, et lævia.* Panicula *sæpius longissima, gracilis, flexuosa, ramis omnibus brevibus parum divisis.* Pedunculi *filiformes.* Calyx 5-*partitus: laciniis ovatis, acutis, aut cuspidatis imbricatis.* Corolla *tubulosa, nullo modo inflata, gracilis, unciam longa, infundibularis, coccinea;* limbo *subæqualiter* 5-*partito, bilabiato.* Antheræ *oblongæ per paria quadratim approximatæ, glabræ, albidæ.* Filamentum *quintum subulatum, apice dilatatum, antherarum longitudine, glabrum.*

A new hardy herbaceous plant, related to *Chelone barbata*, from which it chiefly differs in its very long graceful panicle, more slender flowers destitute of a beard at their mouth, and differently shaped leaves. It is a species of considerable beauty, growing well in any soil or situation, if exposed to the sun; but best adapted to planting among American plants, from the midst of whose bushy masses its long panicles may rise like slender scarlet plumes.

A native of California, whence it was sent by Mr. David Douglas, without any intimation of the situation it naturally occupies. Flowers from July to November; produces seeds in tolerable plenty.

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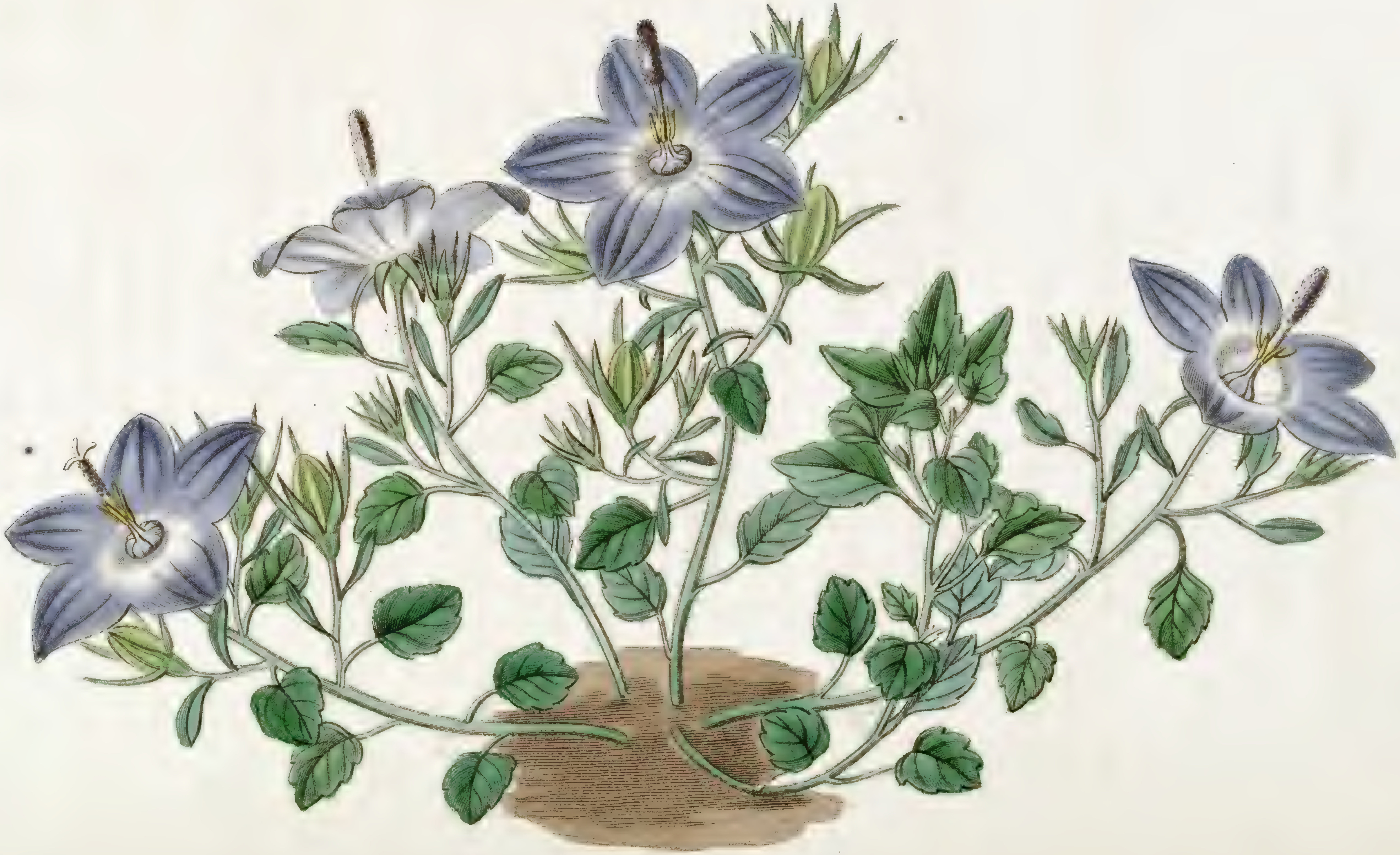
* See folio 1211.

1738.



Miss Drake. del.

Pub by J. Ridgway 169 Piccadilly Feb. 1. 1835.

S. Watts. sc.

* CAMPANULA fragilis, β. *hirsuta.*

Hairy-leaved brittle Bell-flower.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CAMPANULACEÆ *Juss.* (*Introduction to the Natural System of Botany, p.* 185.)

CAMPANULA.—Supra, vol. 1, *fol.* 56.

C. *fragilis;* caulibus ascendentibus diffusis ramosis, foliis radicalibus longè petiolatis cordatis rotundatis obtusè crenato-lobatis, caulinis minoribus ovatis et lanceolatis, floribus paniculatis, lobis calycinis lineari-lanceolatis erectis corollæ subæqualibus, stylo exserto, capsulâ ovoideâ. *Alp. De Cand. Monogr. des Camp.* 306.

C. fragilis. *Cyrill. plant. fasc.* 1. *p.* 32. *t.* 11. *f.* 2.
C. diffusa. *Vahl. Symb. p.* 11.
C. cochlearifolia. *Vahl. Symb. p.* 18.
C. crassifolia. *Nees v. Esenb. Syll. Ratisb.* 1. 6. *amœn. bot. fasc.* 2. *p.* 9. *t.* 4.

A native of the southern parts of Italy, in many places of which it is by no means uncommon, as in the neigbourhood of Naples, the island of Capri, about Cava, on Mount Pollino, and probably elsewhere in Calabria, according to Alphonse de Candolle, who remarks that it is hardly met with further north than 41° of latitude, that it occupies the evergreen region of Italy, and that it even struggles through the lower woodland region as far almost as the upper limits of the beech, that is to say to 3000 feet of elevation above the sea. It grows in exceedingly dense tufts, hanging down from the face of limestone rocks; and flowering in the summer months.

In its native stations it is one of the most lovely objects imaginable. Often have we heard travellers from Italy expatiating upon the beauty of the spots which are enamelled

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[*] The English name *Bell-flower,* and the Latin *Campanula,* equally refer to the form of the corolla.

with the bright blue patches of this interesting stranger, but it was never our good fortune to see it alive, till we met with it in the garden of Mrs. Marryat, at Wimbledon, where our drawing was made last September.

It had been given to Mrs. Pallisser by Professor Tenore as his *Campanula Cavolini;* but probably in mistake ; for it agrees entirely, not only with the account given of *C. fragilis* by that Botanist, in the latest of his published works, but also with dried specimens from himself under the same name. *C. Cavolini* has much smaller and paler flowers, and the segments of the calyx both narrower and longer.

A perennial plant, for which it will be difficult to find in this country the same combination of the mild dry air, the limestone rocks, and the sunny skies of Naples. We presume it will be necessary to treat it as a greenhouse or delicate frame plant in winter ; and no doubt the greatest precaution will be required to prevent its damping off.

1739.

Miss Drake. del.

Pub by J. Ridgway 169 Piccadilly Feb. 1. 1835.

J Watts sc.

1739

* BRUGMANSIA bícolor.

Two-coloured Brugmansia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Solaneæ *Juss.* (*Introduction to the Natural System of Botany, p.* 231.)

BRUGMANSIA Pers. Omnia Daturæ nisi *calyx* persistens nec basi circumscissilis deciduus.

B. *bicolor;* foliis ovatis sinuato-lobatis, corollâ versicolore.

B. bicolor. *Pers. Synops.* 1. 216. *Römer et Schultes, Syst. veg.* 4. 307.

B. sanguinea. *Don in Sweet's Brit. Fl. Gard. t.* 272.

Datura sanguinea. *Ruiz et Pavon. Fl. Peruv.* 2. p. 15. *Humb. et Kunth. nov. gen. et sp. pl. Amer. vol.* 3. 6.

A shrubby plant, requiring exactly the same treatment as the *Brugmansia arborea,* growing vigorously in the open air in this climate during summer, but requiring protection in winter.

It is on many accounts one of the most interesting plants that have been yet brought from South America, for which the public is indebted to Charles Crawley, Esq., who brought it with him from Guayaquil in 1833. It was originally raised in the garden of Miss Traill, and also by Lady Gibbs, of Hayes Common near Bromley, by whom we were favoured with the specimen now represented, and the sight of a beautiful drawing of the flowers in the two conditions of colour. In the Flora Peruviana, and the systematic work of Baron Humboldt it is fully described; from their statements and the materials we have received from Lady Gibbs, we are enabled to draw up the following statement.

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* So named in compliment to Brügmans, a Professor of Natural History and Botany at Leyden, who occupied himself with vegetable chemistry, and who is said to have been the first to notice the secretions of plants by their roots.

This remarkable plant is a native of elevated and cold situations in the provinces of Tarma, Xauxa, Huarochesi, Canta, and Humalies, where it grows among rubbish; it is also found near the village of La Cruz, and on the banks of the river Mayo, between Almaguer and Pasto in New Grenada, where it was found by Humboldt and Bonpland, at nearly 7000 feet above the sea. It begins to flower in June and ceases in November. By the Peruvians it is called *Floripondio encarnado* and *Campanillas encarnadas;* by the Columbians *Bovochevo.* Its stature varies from 10 to 20 feet, the stem being generally undivided and terminated by a roundish leafy head. The flowers are either a bright yellowish orange colour, or the deep orange red of our figure; we believe they change from the former to the latter. They are succeeded by an oblong, smooth, yellow, pendulous capsule, which is as much as eight inches long. The seeds, like those of the common *Stramonium*, are narcotic in a high degree. In the Temple of the Sun, in the city of Sogamoza, there is a famous oracle, the priests of which inspire themselves by chewing the intoxicating seeds of this plant, just as the Pythoness at Delphi received the influence of her god by chewing laurel leaves and inhaling a gaseous vapour. From the fruit itself the Columbians prepare a drink called *Tonga*, which when weak is merely soporific, but drank in stronger doses produces frenzy, which can only be removed by administering immediate draughts of cold water.

From deference to the authority of Mr. Don, we adopt the genus *Brugmansia;* but we confess our inability to discover any ground for separating it from *Datura*, except that its calyx does not separate from its base, and drop off as in the commoner species of the latter genus.

With regard to the specific name, however, we feel bound to preserve that first given to the plant in Persoon's synopsis. It would have been better, perhaps, had that Botanist retained the specific name of the Flora Peruviana, although *in transferring the plant to a new genus* he was by no means required to do so; but as he did not, we cannot perceive either the necessity or the expediency of creating a new name now;

while on the other hand the inconvenience of doing so must be manifest to every one.

We were favoured by Miss Traill with the following memorandum, concerning the management of the plant.

"Some of the plants were placed in the open ground near the greenhouse; but they died down in the cold weather. They have since sprung up and attained the height of about three feet, and have borne leaves and flowers rather imperfectly developed. The stove plants kept their leaves all the winter, and are now between five and six feet high. The plant will not flower in pots, as it has large and spreading roots, and requires a constant supply of moisture."

1740.

Miss Drake del. Pub by J. Ridgway 169 Piccadilly Feb. 1 1835. [illegible]

* GRÓBYA Amhérstiæ.

Lady Amherst's Grobya.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ, § VANDEÆ, *Lindl.* (*Introduction to the Natural System of Botany, p.* 262.)

GROBYA. *Perianthium* explanatum, bilabiatum. *Sepala* lateralia basi connata, sigmoidea, labello supposita, supremo erecto breviora. *Petala* dilatata, sepalo multo majora, erecta, conniventia. *Labellum* liberum, lobatum, nudum, cum basi columnæ articulatum, ascendens, sepalis minus, (nanum). *Columna* erecta, semiteres, arcuata, basi incrassata; *antherâ* proclivi; *stigmat* fornicato. *Pollinia* 2, posticè lobata, caudiculis duabus brevibus glandulæ ovali adnatis. Herba *Braziliensis, pseudobulbosa,* foliis *gramineis,* racemo *pendulo radicali.*

G. *Amherstiæ.*

Pseudobulbi *ovati, virides teretes, cicatricibus* 1-2 *foliorum annulati.* Folia 3-4 *e vagina squamata, linearia, striata, acuta, debilia.* Racemus *pendulus, densus, 3 pollices longus, pseudobulbis duplò longior.* Sepala *pallide ochracea, unicolora.* Petala *maculis fusco-purpureis seriatis notata.* Labellum *cuneatum, apice 5-lobum, lobo quinto cæteris exteriore, disco nudum, atropurpureum.* Columna *pallida, facie purpureo fasciata.*—— 1. Labellum. 2. Columna. 3. Pollinia *cum* glandulâ *suâ.*

For this curious species we are obliged to the Countess Amherst, in whose collection at Montreal it flowered for the first time in September last. It had been sent home by Mr. Hayne, a Commissioner in Brazil, from the interior of that country in 1829. To the pencil of Lady Sarah Amherst we are indebted for a sketch of the manner in which the plant grows.

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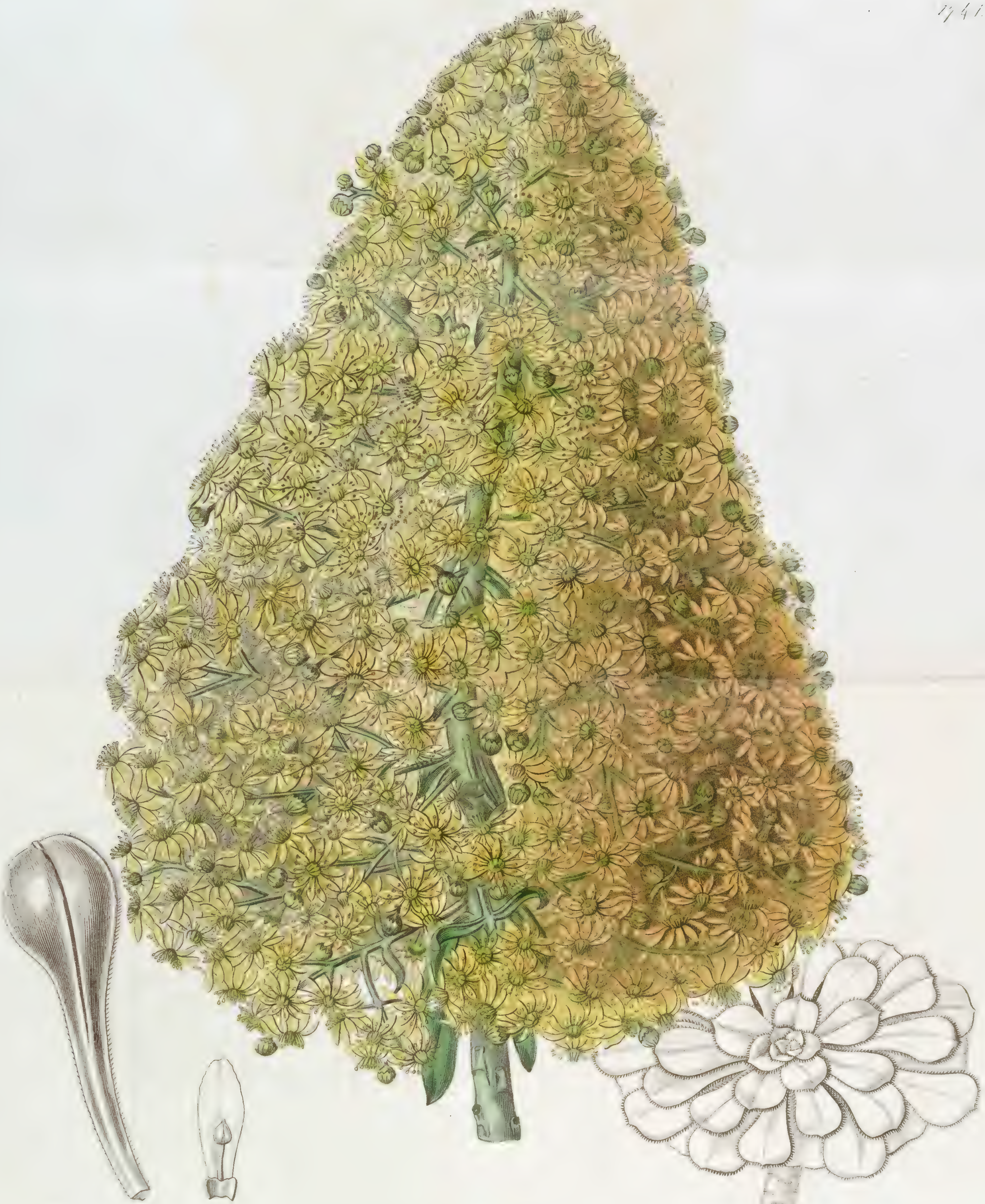
* The genus is named in compliment to the Right Honourable Lord Grey of Groby, a munificent patron of Horticulture, and a most zealous cultivator of Orchideous Epiphytes; the species records the sense we entertain of the claims of the noble family of Amherst upon the gratitude of Botanists, for the countenance afforded by them to natural history so long as their power continued in the Eastern world.

Grobya is most nearly allied to *Cymbidium*, from which it is distinguished, firstly, by the lateral sepals being united at the base; secondly, by the large size of the petals; thirdly, by the lip having no parallel elevated lines; and fourthly, by the pollen masses being united to the gland by two distinct caudiculæ.



Miss Drake. del.

Pub by J. Ridgway 169 Piccadilly Feb: 1. 1835.

S. Watts sc.

1741

* SEMPERVÍVUM úrbicum.

City Houseleek.

DODECANDRIA *HEXAGYNIA.*

Nat. Ord. CRASSULACEÆ *De Cand.* (*Introduction to the Natural System of Botany, p.* 161.)

SEMPERVIVUM.—Supra, vol. 18, *fol.* 1553.

§ 1. *Chronobium.* Propagines nullæ. Flores sæpius flavi, rariùs albi. ——Species omnes Canarienses aut Maderienses *D. C.*

S. *urbicum;* caule fruticoso erecto apice folioso veteribus foliorum cicatricibus quadratis tessellato, foliis spathulatis glabris nitidis cartilagineo-ciliatis, basi tetragono-attenuatis apice rubro-marginatis. *De Cand. Prodr.* 3. 411.

S. urbicum. *Horn. suppl. p.* 60. ex. D. C. *Haworth in Phil. Mag.* 1827, *p.* 125.

Folia *atroviridia, spathulata, obtusa; ciliis marginis rigidis cartilagineis.* Panicula *spithamæa, densissima, pyramidalis.* Flores *glabri, aurei.* Squamæ hypogynæ *latæ, truncatæ, glabræ, levissimè emarginatæ.*

A greenhouse plant, found commonly on rocks and the roofs of houses in Teneriffe, in inland parts of the Island, where the air is damper than in the valleys.

It was first met with by the late Dr. Christian Smith, who perished in the disastrous expedition under Captain Tuckey to the Congo. Latterly it has been found by Messrs. Webb and Berthelot, in their examination of the Flora of the Canaries. We obtained our specimen from Mr. Young, the skilful manager of the garden of the former of these Gentlemen, at Milford near Godalming. It flowers in the months of December, January, and February; and is one of the handsomest of the shrubby species of this interesting genus. As Messrs Young and Penny of Milford have plants of this and other curious things from the Canary Islands for sale, the public will have no difficulty in procuring it from them.

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* See folio 1553.

ALPHABETICAL INDEX

TO

VOL. VII. OF THE NEW SERIES.

	Folium
Acanthophippium bicolor	1730
Adesmia Loudonia	1720
Aristolochia Chilensis	1680
Aster eminens, var. *virgineus*	1656
Azalea Indica, *lateritia*	1700
Azalea Indica, *variegata*	1716
Banksia speciosa	1728
Bartholina pectinata	1653
Batemannia Colleyi	1714
Begonia heracleifolia	1668
Beloperone oblongata	1657
Billardiera ovalis	1719
Bletia gracilis	1681
Brugmansia bicolor	1739
Calceolaria polifolia	1711
Calochortus venustus	1669
Calochortus splendens	1676
Campanula fragilis	1738
Catasetum luridum	1667
Catasetum semiapertum	1708
Ceropegia elegans	1706
Chelone centranthifolia	1737
Collinsia bicolor	1734
Colutea nepalensis	1727
Cyclobothra alba	1661
Cyclobothra pulchella	1662
Cyclobothra lutea	1663
Cypripedium spectabile	1666
Dendrobium aggregatum	1695
Deutzia scabra	1718
Diplopappus incanus	1693
Echinocactus oxygonus	1717
Echinocactus Eyriesii	1707
Echites stellaris	1664
Erica codonodes	1698
Eschscholtzia crocea	1677
Eupatorium glandulosum	1723
Euphoria Longan	1729
Garrya elliptica	1686
Geodorum fucatum	1687
Gilia achilleæfolia	1682
Gilia coronopifolia	1691
Gilia tricolor	1704
Grobya Amherstiæ	1740
Ismene Amancaes, var. *sulphurea*	1665
Kennedya nigricans	1715
Lalage ornata	1722
Leptosiphon androsaceus	1710
Leptosiphon densiflorus	1725
Liatris scariosa	1654
Limnanthes Douglasii	1673
Linaria Dalmatica	1683
Liparis guineensis	1671
Lithospermum rosmarinifolium	1736
Lupinus densiflorus	1689
Lupinus leptophyllus	1670
Lupinus nanus	1705
Maytenus chilensis	1702
Mesembryanthemum rubrocinctum	1732
Mimulus Smithii	1674
Monachanthus discolor	1735
Myanthus cernuus	1721
Nemophila insignis	1713
Oncidium ampliatum	1699
Oncidium ciliatum	1660
Opuntia monacantha	1726
Orchis foliosa	1701
Pœonia Moutan	1678
Pernettia mucronata	1675
Phacelia tanacetifolia	1696
Platystemon Californicum	1679
Portulaca Gilliesii	1672
Pultenæa flexilis	1694
Pyrolirion aureum	1724
Pyrus crenata	1655
Rhodanthe Manglesii	1703
Rhododendron arboreum, var. *album.*	1684
Ribes niveum	1692
Ribes punctatum	1658
Sempervivum urbicum	1741
Solanum etuberosum	1712
Sphærostema propinquum	1688
Stachys inflata	1697
Stapelia Gussoneana	1731
Stigmaphyllon aristatum	1659
Syringa Josikæa	1733
Talauma Candollii	1709
Triteleia laxa	1685
Yucca superba	1690

GENERAL ALPHABETICAL INDEX

TO

VOLS. I. II. III. IV. V. VI. AND VII. OF THE NEW SERIES.

Folium
Acacia albida 1317
Acacia leprosa 1441
Acacia lunata 1352
Acacia pentadenia 1521
Acacia uncinata 1332
Acanthophippium bicolor 1730
Acæna pinnatifida 1271
Aceras secundiflora 1525
Adenotrichia amplexicaulis 1190
Adesmia Loudonia 1720
Aerides cornutum 1485
Agave geminiflora 1145
Alströmeria psittacina 1540
Alströmeria pulchella, var. *pilosa* . . . 1410
Amaryllis acuminata, var. *longipedunculata* 1188
Amaryllis coranica, var. *pallida* . . . 1219
Amaryllis intermedia 1148
Amaryllis kermesina 1638
Amelanchier florida 1589
Amelanchier sanguinea 1171
Amygdalus communis, var. *macrocarpa* . 1160
Amygdalus persica, var. *alba* . . . 1586
Anemone vitifolia 1385
Angræcum eburneum 1522
Anomatheca cruenta 1369
Anona laurifolia 1328
Anthocercis viscosa 1624
Antholyza æthiopica, var. *minor* . . . 1159
Anthurium gracile 1635
Aphelandra cristata 1477
Argemone grandiflora 1264
Argemone ochroleuca 1343
Aristolochia caudata 1453
Aristolochia Chilensis 1680
Aristolochia cymbifera 1543
Aristolochia trilobata 1399
Asphodelus luteus, var. *sibiricus* . . 1507
Aster adulterinus 1571
Aster eminens, var. *virgineus* . . . 1656
Aster amygdalinus 1517
Aster concinnus 1619
Aster cordifolius 1597
Aster coridifolius 1487
Aster cyaneus 1495
Aster eminens 1614
Aster fragilis 1537
Aster lævis 1500
Aster pallens 1509
Aster puniceus, var. *demissus* . . . 1636
Aster spectabilis 1527
Astragalus succulentus 1524
Audibertia incana 1469
Azalea calendulacea, var. *subcuprea* . . 1366
Azalea calendulacea, var. *lepida* . . . 1402
Azalea calendulacea, var. *Stapletoniana* . 1407
Azalea Indica, var. *lateritia* . . . 1700
Azalea indica, var. *variegata* . . . 1716
Azalea nudiflora, var. *scintillans* . . 1461
Azalea nudiflora, var. *thyrsiflora* . . 1367
Azalea pontica, var. *sinensis* . . . 1253
Azalea pontica, var. *versicolor* . . . 1559
Banksia littoralis 1363
Banksia prostrata 1572
Banksia quercifolia 1430

Folium
Banksia speciosa 1728
Banksia undulata 1316
Barleria lupulina 1483
Bartholina pectinata 1653
Batemannia Colleyi 1714
Bauhinia cumanensis 1133
Begonia heracleifolia 1668
Begonia villosa 1252
Beloperone oblongata 1657
Benthamia fragifera 1579
Berberis aquifolium 1425
Berberis glumacea 1426
Berberis repens 1176
Bignonia Cherere 1301
Billardiera ovalis 1719
Billbergia pyramidalis, var. *bicolor* . . 1181
Blackwellia padiflora 1308
Bletia florida 1401
Bletia gracilis 1681
Bœbera incana 1602
Brasavola nodosa 1465
Brasavola Perrinii 1561
Brodiæa grandiflora 1183
Browallia grandiflora 1384
Brownlowia elata 1472
Brugmansia bicolor 1739
Brunsvigia ciliaris 1153
Brunsvigia grandiflora 1335
Buddlea heterophylla 1259
Burtonia conferta 1600
Cactus Ackermanni 1331
Cactus speciosissimus, var. *lateritius* . . 1596
Calandrinia arenaria 1605
Calandrinia grandiflora 1194
Calandrinia speciosa 1598
Calanthe densiflora 1646
Calathea grandifolia 1210
Calceolaria arachnoidea 1454
Calceolaria ascendens 1215
Calceolaria chiloensis 1476
Calceolaria crenatiflora 1609
Calceolaria diffusa 1374
Calceolaria floribunda 1214
Calceolaria Herbertiana 1313
Calceolaria Herbertiana, var. *parviflora* . 1576
Calceolaria polifolia 1711
Calceolaria purpurea 1621
Calceolaria rugosa 1588
Calceolaria sessilis 1628
Calceolaria viscosissima 1611
Calceolaria, Mr. Young's 1448
Calliprora lutea 1570
✓Calochortus macrocarpus 1152
✓Calochortus luteus 1567
✓Calochortus splendens 1676
✓Calochortus venustus 1669
Camassia esculenta 1486
Camellia japonica, var. *imbricata* . . 1398
Camellia japonica, var. *punctata* . . 1267
Camellia japonica, var *Reevesiana* . . 1501
Campanula fragilis 1738
Canavalia bonariensis 1199
Canna Achiras 1358
Canna discolor 1231

GENERAL INDEX TO THE NEW SERIES.

Folium
Canna lagunensis . . . 1311
Canna speciosa . . . 1276
Capparis acuminata . . . 1322
Caprifolium longiflorum . . . 1232
Caprifolium occidentale . . . 1457
Cassia biflora . . . 1310
Cassia Herbertiana . . . 1422
Castilleja coccinea . . . 1136
Catasetum luridum . . . 1667
Catasetum semiapertum . . . 1708
Cattleya crispa . . . 1172
Cattleya guttata . . . 1406
Cereus, crimson creeping . . . 1565
Ceropegia elegans . . . 1706
Chasmonia incisa . . . 1244
Cheiranthus mutabilis . . . 1431
Chelone centranthifolia . . . 1737
Chelone nemorosa . . . 1211
Chorozema ovatum . . . 1528
Chorozema triangulare . . . 1513
Chrysanthemum indicum . . . 1287
Chrysanthemum indicum, var *planum* . . . 1502
Cirrhæa Loddigesii . . . 1538
Clarkia elegans . . . 1575
Clematis chlorantha . . . 1234
Cleome speciosissima . . . 1312
Clerodendron hastatum . . . 1307
Clintonia elegans . . . 1241
Clivia nobilis . . . 1182
Coburgia fulva . . . 1497
Coleus aromaticus . . . 1520
Collinsia bicolor . . . 1734
Collomia grandiflora . . . 1174
Collomia coccinea . . . 1622
Collomia heterophylla . . . 1347
Collomia linearis . . . 1166
Colutea nepalensis . . . 1727
Combretum comosum . . . 1105
Combretum grandiflorum . . . 1631
Conanthera campanulata . . . 1193
Conocephalus naucleiflorus . . . 1203
Convolvulus farinosus . . . 1323
Cordia grandiflora . . . 1491
Coreopsis Atkinsoniana . . . 1376
Coreopsis aurea . . . 1228
Correa pulchella . . . 1224
Corydalis bracteata . . . 1644
Costus pictus . . . 1594
Cotoneaster frigida . . . 1229
Cotoneaster laxiflora . . . 1305
Cotoneaster microphylla, var. *Uva Ursi* . . . 1187
Crassula turrita . . . 1344
Cratægus cordata . . . 1151
Cratægus heterophylla . . . 1161
Crinum latifolium . . . 1297
Crocus vernus, var. *leucorhynchus* . . . 1416
Crocus vernus, var. *pictus* . . . 1440
Crotalaria verrucosa . . . 1137
Cuphea Llavea . . . 1386
Cyclobothra alba . . . 1661
Cyclobothra pulchella . . . 1662
Cyclobothra lutea . . . 1663
Cymbidium marginatum . . . 1530
Cyrtanthus carneus . . . 1462
Cyrtochilum flavescens . . . 1627
Cyrtopodium Woodfordii . . . 1508
Cypripedium macranthos . . . 1534
Cypripedium spectabile . . . 1666
Cytisus multiflorus . . . 1191
Daphne hybrida . . . 1177
Delphinium Menziesii . . . 1192
Delphinium speciosum . . . 1503
Dendrobium aggregatum . . . 1695
Dendrobium anceps . . . 1239
Dendrobium chrysanthum . . . 1299
Dendrobium longicornu . . . 1315
Dendrobium moniliforme . . . 1314
Dendrobium secundum . . . 1291
Dendrobium speciosum . . . 1610
Deutzia scabra . . . 1718
Dianthus Libanotis . . . 1548
Digitalis laciniata . . . 1201
Dillwynia glycinifolia . . . 1514
Diospyrus Mabola . . . 1139
Diplopappus incanus . . . 1693
Dracæna surculosa . . . 1169
Drimia villosa . . . 1346
Duvaua dependens . . . 1573
Duvaua latifolia . . . 1580
Duvaua ovata . . . 1568
Echeveria gibbiflora . . . 1247
Echinocactus oxygonus . . . 1717
Echinocactus Eyriesii . . . 1707
Echites stellaris . . . 1664
Elæagnus angustifolia . . . 1156
Epacris nivalis . . . 1531
Epidendrum odoratissimum . . . 1415
Epidendrum oncidioides . . . 1623
Eranthemum fœcundum . . . 1494
Erica codonodes . . . 1698
Eriophyllum cæspitosum . . . 1167
Erythrina carnea . . . 1327
Erythrina poianthes . . . 1246
Erythrina poianthes, var. *subinermis* . . . 1617
Escallonia montevidensis . . . 1467
Eschscholtzia californica . . . 1168
Eschscholtzia crocea . . . 1677
Eulophia ensata . . . 1147
Eulophia Mackaiana . . . 1433
Eupatorium glandulosum . . . 1723
Euphoria Longan . . . 1729
Eurybia corymbosa . . . 1532
Eurycles Cunninghamii . . . 1506
Eutoca multiflora . . . 1180
Francoa appendiculata . . . 1645
Fuchsia bacillaris . . . 1480
Fuchsia globosa . . . 1556
Fuchsia microphylla . . . 1269
Fuchsia thymifolia . . . 1284
Gaillardia aristata . . . 1186
Galipea odoratissima . . . 1420
Garrya elliptica . . . 1686
Gastrolobium retusum . . . 1647
Gaultheria Shallon . . . 1411
Genista procumbens . . . 1150
Geodorum fucatum . . . 1687
Gesnera macrostachya . . . 1202
Gesnera rutila . . . 1158
Gesnera rutila, var. *atrosanguinea* . . . 1279
Gesnera Suttoni . . . 1637
Geum chilense, var. *grandiflorum* . . . 1348
Gilia Achilleæfolia . . . 1682
Gilia coronopifolia . . . 1691
Gilia tricolor . . . 1704
Gilia capitata . . . 1170
Gladiolus psittacinus . . . 1442
Glycine biloba . . . 1413
Gompholobium capitatum . . . 1563
Gompholobium Knightianum . . . 1468
Gompholobium tenue . . . 1615
Gompholobium venulosum . . . 1574
Gompholobium marginatum . . . 1490
Gompholobium tomentosum . . . 1474
Gongora maculata . . . 1616
Grevillea concinna . . . 1383
Grevillea punicea . . . 1319
Grobya Amberstiæ . . . 1740
Guettarda speciosa . . . 1393
Habranthus Andersoni . . . 1345
Habranthus Bagnoldi . . . 1396
Habranthus Phycelloides . . . 1417
Hakea linearis . . . 1489
Hamelia ventricosa . . . 1195
Haylockia pusilla . . . 1371
Hedychium coccineum . . . 1209
Helianthus lenticularis . . . 1265
Helianthus tubæformis . . . 1519
Heliconia pulverulenta . . . 1648
Herminium cordatum . . . 1499
Hesperoscordum lacteum . . . 1639
Heuchera micrantha . . . 1302
Hibiscus Lindleii . . . 1395
Hibiscus palustris . . . 1463
Hibiscus splendens . . . 1629
Hosackia bicolor . . . 1257
Hosta cærulea . . . 1204
Hovea chorozemæfolia . . . 1524
Hovea lanceolata . . . 1427
Hovea purpurea . . . 1423
Hovea villosa . . . 1512

GENERAL INDEX TO THE NEW SERIES.

Folium
Ipomopsis elegans 1281
Iris bicolor 1404
Iris tenax 1218
Ismene Amancaes, var. *sulphurea* 1665
Isopogon formosus 1288
Jasminum acuminatum 1296
Jasminum Wallichianum 1409
Justicia carnea 1397
Justicia guttata 1334
Justicia picta 1227
Justicia quadrangularis 1340
Justicia venusta 1380
Kæmpferia Roscoeana 1212
Kennedya dilatata 1526
Kennedya inophylla 1421
Kennedya monophylla, var. *longiracemosa* 1336
Kennedya nigricans 1715
Lachenalia pallida 1350
Lalage ornata 1722
Lathyrus californicus 1144
Lathyrus tingitanus 1388
Ledocarpum pedunculare 1392
Lepechinia spicata 1292
Leptosiphon androsaceus 1710
Leptosiphon densiflorus 1725
Leptotes bicolor 1625
Leucocoryne odorata 1293
Leucopogon parviflorus 1560
Liatris scariosa 1654
Libertia formosa 1630
Limnanthes Douglasii 1673
Limnocharis Humboldti 1640
Linaria Dalmatica 1683
Linum mexicanum 1326
Linum sibiricum, var. *Lewisii* 1163
Liparis elata 1175
Liparis guineensis 1671
Lissanthe sapida 1275
Lithospermum rosmarinifolium 1736
Loasa ambrosiæfolia 1390
Loasa Placei 1599
Lobelia longiflora 1200
Lobelia purpurea 1325
Lobelia, Low's purple 1445
Lobelia Tupa 1612
Lonicera involucrata 1179
Lophanthus anisatus 1282
Lophospermum erubescens 1381
Lotus arenarius 1488
Lowea berberifolia 1261
Lupinus arbustus 1230
Lupinus albifrons 1642
Lupinus aridus 1242
Lupinus densiflorus 1689
Lupinus elegans 1501
Lupinus laxiflorus 1140
Lupinus lepidus 1149
Lupinus leptophyllus 1670
Lupinus littoralis 1198
Lupinus micranthus 1251
Lupinus mutabilis 1539
Lupinus nanus 1705
Lupinus ornatus 1216
Lupinus plumosus 1217
Lupinus polyphyllus, var. *albiflorus* 1377
Lupinus rivularis 1595
Lupinus Sabinianus 1435
Madia elegans 1458
Magnolia Yulan, var. *Soulangiana* 1164
Malva Munroana 1306
Malva purpurata 1362
Malva umbellata 1608
Mammillaria pulcra 1329
Mammillaria tenuis 1523
Maxillaria ciliaris 1206
Maxillaria decolor 1549
Maxillaria racemosa 1566
Maxillaria tetragona 1428
Maxillaria viridis 1510
Maytenus chilensis 1702
Mesembryanthemum rubrocinctum 1732
Michauxia lævigata 1451
Microstylis ophioglossoides 1290
Milla biflora 1555
Mimulus propinquus 1330
Mimulus roseus 1591
Mimulus Smithii 1674

Folium
Mirbelia Baxteri 1434
Monachanthus discolor 1735
Moscharia pinnatifida 1564
Myanthus cernuus 1721
Nanodes discolor 1541
Nemophila aurita 1601
Nemophila insignis 1713
Nierembergia filicaulis 1649
Nicotiana persica 1592
Œnothera anisoloba 1479
Œnothera bifrons 1405
Œnothera biennis, var. *grandiflora* 1604
Œnothera decumbens 1221
Œnothera densiflora 1593
Œnothera glauca 1511
Œnothera pallida 1142
Œnothera tenella, var. *tenuifolia* 1587
Œnothera viminea 1220
Oncidium cornigerum 1542
Oncidium altissimum 1651
Oncidium ampliatum 1699
Oncidium ciliatum 1660
Oncidium Harrisonianum 1569
Ononis peduncularis 1447
Ophrys aranifera, var. *limbata* 1197
Opuntia aurantiaca 1606
Opuntia monacantha 1726
Orchis papilionacea 1155
Orchis foliosa 1701
Osbeckia nepalensis, var. *albiflora* 1475
Oxalis Bowiei 1585
Oxalis Cummingi 1545
Oxalis divergens 1620
Oxalis tortuosa 1249
Oxalis variabilis 1505
Pachypodium tuberosum 1321
Palavia rhombifolia 1375
Pæonia albiflora, var. *Pottsii* 1436
Pæonia hybrida 1208
Pœonia Moutan 1678
Pæony, Semidouble tree 1456
Pancratium pedale 1641
Papaver Persicum 1570
Passiflora ligularis 1339
Passiflora gossypiifolia 1634
Passiflora kermesina 1633
Passiflora phœnicea 1603
Pentstemon acuminatum 1285
Pentstemon attenuatum 1295
Pentstemon confertum 1260
Pentstemon deustum 1318
Pentstemon diffusum 1132
Pentstemon glandulosum 1262
Pentstemon glaucum 1286
Pentstemon pruinosum 1280
Pentstemon pulchellum 1138
Pentstemon Scouleri 1277
Pentstemon speciosum 1270
Pentstemon triphyllum 1245
Pentstemon venustum 1309
Pereskia Bleo 1473
Perilomia ocymoides 1394
Pernettia mucronata 1675
Persea gratissima 1258
Petunia violacea 1626
Phacelia tanacetifolia 1696
Pharium fistulosum 1546
Platystemon Californicum 1679
Phlomis floccosa 1300
Phlox speciosa 1351
Pholidota imbricata 1213
Phycella Herbertiana 1341
Pimelea humilis 1268
Pimelea hispida 1578
Pimelea intermedia 1439
Pimelea sylvestris 1582
Pleurothallis prolifera 1298
Plumeria Lambertiana 1378
Podolobium trilobatum 1333
Polemonium cæruleum, var. *piliferum* 1303
Polemonium humile 1304
Polygala oppositifolia, var. *major* 1146
Polygonum injucundum 1250
Portulaca Gilliesii 1672
Potentilla arguta 1379
Potentilla glandulosa 1583
Potentilla Hopwoodiana 1387

GENERAL INDEX TO THE NEW SERIES.

Folium
Potentilla laciniosa 1478
Potentilla missourica 1412
Potentilla Russell's 1496
Potentilla viscosa 1492
Pothos scandens 1337
Pratia begonifolia 1373
Prunus candicans 1135
Prunus dasycarpa 1243
Pultenæa flexilis 1694
Pultenæa rosmarinifolia 1584
Pultenæa subumbellata 1632
Purshia tridentata 1446
Pyrolirion aureum 1724
Pyrus angustifolia 1207
Pyrus crenata 1655
Pyrus Bollwylleriana 1437
Pyrus grandifolia 1154
Pyrus nivalis 1434
Pyrus salvifolia 1482
Pyrus sinensis 1248
Pyrus spuria 1196
Ranunculus creticus, var. *macrophyllus* 1432
Reevesia thyrsoidea 1236
Renanthera coccinea 1131
Rhaphiolepis rubra 1400
Rhodanthe Manglesii 1703
Rhododendron Alta-clerense 1414
Rhododendron arboreum, var. *roseum* 1240
Rhododendron arboreum, var. *album* 1684
Rhododendron, Cartons 1449
Ribes cereum 1263
Ribes divaricatum 1359
Ribes inebrians 1471
Ribes niveum 1692
Ribes punctatum 1658
Ribes sanguineum 1349
Ribes setosum 1237
Ribes speciosum 1557
Ribes tenuiflorum 1574
Rose Clare 1438
Rosa multiflora, var. *platyphylla* 1372
Rosa Ruga 1389
Rubus nutkanus 1368
Rubus roridus 1607
Rubus spectabilis 1424
Ruellia Sabiniana 1238
Saccolabium papillosum 1552
Sagittaria angustifolia 1141
Salpiglossis atropurpurea 1518
Salvia angustifolia 1554
Salvia foliosa 1429
Salvia fulgens 1356
Salvia Grahami 1370
Salvia involucrata 1205
Sarcanthus guttatus 1443
Sauroglossum elatum 1618
Schizanthus pinnatus, var. *humilis* 1562
Schizanthus retusus 1544
Scilla plumbea 1355
Scottia angustifolia 1266
Scottia dentata 1233
Scottia lævis 1652
Scutellaria alpina 1460
Scutellaria alpina, var. *lupulina* 1493
Sedum Cepæa 1391
Selago Gillii 1504
Sempervivum villosum 1553
Sempervivum urbicum 1741

Folium
Senecio lilacinus 1342
Senecio Tussilaginis 1550
Serapias cordigera, var. *longipetala* 1189
Silene laciniata 1444
Sinningia villosa 1134
Sisyrinchium grandiflorum 1364
Sisyrinchium odoratissimum 1283
Solandra guttata 1551
Solanum crispum 1516
Solanum etuberosum 1712
Sollya heterophylla 1466
Sophora velutina 1185
Soulangia rubra 1498
Sparaxis pendula 1360
Spermadictyon azureum 1235
Sphacele campanulata 1382
Sphærostema propinquum 1688
Sphenotoma capitatum 1515
Spiræa ariæfolia 1365
Spiræa chamædrifolia 1222
Stachys albicaulis 1558
Stachys germanica, var. *pubescens* 1289
Stachys inflata 1697
Stachys Salviæ 1226
Stanhopea eburnea 1529
Stapelia Gussoneana 1731
Statice puberula 1450
Stemodia chilensis 1470
Stenactis speciosa 1577
Sterculia lanceolata 1256
Sterculia Tragacantha 1353
Stigmaphyllon aristatum 1659
Streptocarpus Rexii 1173
Stylidium fasciculatum 1459
Syringa Josikæa 1733
Tabernæmontana densiflora 1273
Tacsonia pinnatistipula 1536
Talauma Candollii 1709
Tellima grandiflora 1178
Teucrium orchideum 1255
Thermopsis fabacea 1272
Thryallis brachystachys 1162
Tillandsia acaulis 1157
Tillandsia rosea 1357
Tillandsia stricta 1338
Trachymene cærulea 1225
Tradescantia undata 1403
Trichopetalum gracile 1535
Trifolium vesiculosum 1408
Triteleia laxa 1685
Tropæolum pentaphyllum 1547
Tulipa Oculus solis, var. *persica* 1143
Tulipa Oculus solis, var. *præcox* 1419
Tupistra nutans 1223
Turræa pinnata 1413
Ulex genistoides 1452
Vaccinium ovatum 1354
Verbena Melindres 1184
Vernonia axilliflora 1464
Viburnum cotinifolium 1650
Villarsia reniformis 1533
Viola præmorsa 1254
Westringia longifolia 1481
Xerophyllum setifolium 1613
Yucca superba 1600
Zephyranthes mesochloa 1361
Zinnia violacea, var. *coccinea* 1294

THE END.

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